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The Draft Stallion.

By Alex. Duncan, Elrick Farm, Moffat, Assa.

The choosing of a draft stallion suitable for Manitoba and Assiniboia is a matter of very great importance, not only to the owners of the stallion, but to the farmers in the district in which he is to travel. If he is not a first-class horse of the class most suited to the needs of the district, or if not a sure foal-getter, he will only be a bill of expense and a vexation to the farmers using him. On the other hand, there is no doubt that there are some excellent stallions throughout Manitoba and the Territories that are worth a mint of money to their owners, as well as being a boon to the farmers using them.

This is a subject upon which there will be a great difference of opinion, because there is no subject the average man thinks he is more competent to grapple with than the horse, and all you have to do to arouse a man's antagonism is to tell him he doesn't know anything about a horse. As The Farmer says, "a moderate sized Clyde is the best in sight," let the sire be of whatever draft breed the farmers may fancy the success in breeding depends a great deal on the farmers themselves. The in-foal mares and colts should have the very best of care or the offspring of our very best stallions will turn out to be only ordinary brutes. There have been so many mongrel stallions used that the country is overrun with plugs of every description; but let the farmers wake up and use nothing but a pedigreed sire of the right stamp on their best mares, study the build of their mares, the sort of horses they want for farm work, and do everything to discourage the mongrel. The difference in the service fee of a good stallion is as nothing when compared to the satisfaction in driving a good team afterwards.

The Shire horse resembles the Clyde so closely that good judges cannot sometimes distinguish the difference between them. He will, however, in general be found a rather larger, bulkier animal and a little coarser in bone and hair. The English breeders have done a great deal to bring the Shire horse into prominence. One thing that has placed them lower than the Clydesdale in the estimation of people this side of the water is the fact that until a comparatively recent period very few really first-class Shire horses have been imported.

The Clydesdale horse was never more popular than at the present time. During the last part of the century just closed a number of Clydesdale stallions have earned for themselves almost a world wide fame. A few of these are Prince of Wales, Topsman, Time O'Day, Macgregor, Lord Erskine, etc., and whose offspring could usually be counted on for possessing the following very desirable properties in combination, namely: Style, symmetry, substance, perfect shape, power of endurance and first-class action. The action of draft horses is not closely enough scrutinized in this country. Many people are carried away by an extra high-headed horse, going at a furious rate for a short distance, while he may have

neither square action nor staying powers—qualities of far greater importance.

The "model" Clydesdale stallion should be about 16½ hands high and weigh, in moderate flesh, 1,800 pounds. His head of moderate size, not too bony looking, nor yet clumsy, but wide between the eyes. Ears medium length and active. Eyes, large, full and bright, expressive of both mildness and vigor. Neck, good length and well-arched, but necessarily high for draft purposes. The shoulders should be deep and powerful, but not to perpendicular, or the action of the fore legs will be hampered. The fore-arm should be strong and heavily muscled. The knee broad. The cannon bone short, strong and broad from

erns are too short and steep, the action cannot be free.

In walking, the Clydesdale horse should have a long, swinging rapid gait; when trotting, he should bend the fore knees well, move square and straight, getting well over the ground.

The mare for breeding purposes. Let her be only of medium size, not too far from the ground, but long, deep and roomy, with good legs, pasterns and feet, mild in disposition, well-bred and free from any form of unsoundness.

The issue of the Northwest Territories' Gazette for January 31st contains a list of poundkeepers in the Territories.

tious growths than ever before, but its greenness, though making it more palatable—to cattle especially—makes it specially dangerous to horses. There is less substance in it, and the animal, realizing this, has to eat more of it. The stomach of the horse being much smaller and less adapted to the digestion of bulky food than that of the ox, this excessive consumption of coarse and poorly nourishing food leads to very serious gastric disorders, which too frequently end in death. The bowels get overloaded and fail to do their proper work, which may be noticed from the very small amount of droppings. This is nature's danger signal, and the simplest remedy is to keep the



Cloth of Gold, 8962.

Winner of first prize at Iowa and Illinois State Fairs, 1900. Owned by Alex. Galbraith, Janesville, Wisconsin. Cloth of Gold was bred by Col. Holloway, Alexis, Illinois, and was foaled March 31, 1897. He is a chestnut in color, with four white legs and white face. His sire is Lord Charming, by Prince Charming, by Cedric, by Prince of Wales. His dam is Madge III, by Cedric; grand dam Madge, by Old Times; g. g. dam Nancy of Mull, by Lord Lyon.

a side view. Pasterns of good fair length and well sloped forward. Feet pretty large and well-spread, tough in substance. Hair on the legs should be soft and silky-looking—coarse, matted hair and round bones should be avoided. Chest should be full and broad. Back short and pretty straight, with ribs well-sprung and coming well down on the flank. Avoid long bodies, wasp-waists and loose couplings. The hind-quarters should be lengthy, broad and powerful. Thighs strong and well-covered with muscle. Hocks broad, clean and free from all appearance of fleshiness. Legs flat and strong, descending almost perpendicularly from point of hock to pastern joints. Pasterns fairly long and sloping well forward; if past-

Trouble Among Horses.

A much larger amount of sickness among horses is reported this winter than ever before. The two able veterinarians now at work among our farmers' institutes, Drs. Young, of Manitou, and Thompson, Provincial Veterinarian, agree in attributing this to the quality of the feed due to the exceptional nature of last season. Good oats are rare, the great bulk of the crop being poorly filled and much of it rusty, and of correspondingly small total yield. Such being the case, the partially idle horses are fed all they will eat of straw or hay, whichever happens to be most abundant on the farm. This class of feed is more mixed with green unnutri-

animal from eating any more of the same class of food till a more healthy action of the bowels can be set up. A tablespoonful of powdered Glauber salts in the feed twice a day is a good laxative and corrective for such cases. Less bulky feed and more concentrated feed along with suitable exercise will help to avert this class of trouble. If at all possible, bran should be a portion of the feed.

Prepare warm dry quarters for the early lambs.

Breeding ewes should be kept by themselves, so that they may not be under any unnecessary excitement.

Canadian Horse Breeders' Association.

The annual meeting of the association was held in Toronto recently. The secretary-treasurer's report showed a balance on hand of \$2,905, and he gave an encouraging report of the year's operations. Prices were higher, the various horse shows better attended, and greater improvement was noticed than ever before. The horse industry in Canada was never on so satisfactory a footing as now, and the volume of trade, both at home and abroad, had greatly increased, due in a measure to the demand created by the South African war. The advance of electricity and the bicycle had caused a demand for a better class of horses, to the encouragement of the breeders. There were signs that in the coming years more official attention would be paid to the horse. The Ontario government had shown the way by a liberal donation to the Canadian Horse Show, held annually in Toronto, of which that grant had been the backbone, and the Hon. Sydney Fisher, Dominion Minister of Agriculture, had also given the interests of the horse a great impetus by the generous prize he offered for the three classes of military horses at last year's show — cavalry, mounted infantry and artillery.

R. Miller moved, seconded by D. McCrae, that this association, desiring to advance the interests of horse breeding throughout the province, hereby authorize the directors to offer premiums to encourage the placing of the very best stallions in districts where horse breeders guarantee a sufficient sum for their services during the year, the details to be determined by the directors and the gross amount not to exceed \$1,000, distributed in ten premiums in different districts.

This motion provoked a long discussion, and it was finally resolved to make the total grant \$500.

The officers for 1901 are: President, Dr. Andrew Smith; vice-president, H. N. Crossley; secretary-treas., H. Wade. Directors are elected by the various horse associations, and from them the above officers are chosen. They are as follows: John Macdonald and Robert Beith, Hackney Horse Society; W. Hendrie, Jr., and D. B. Simpson, Clydesdale Horse Association; W. E. Wellington and H. N. Crossley, Shire Horse Association; Dr. And. Smith and S. B. Friller, Thoroughbred Association; E. W. Cox and J. M. Gardhouse, Draft Horse Association; George Pepoer and W. Harland Smith, Saddle and Carriage Horse Society.

Toward the end of the career of Anthony Cruickshanks, J. Deane Willis, of Bapton Manor, in Wiltshire, invested freely in his Shorthorns, which up to that date had been fought shy of by all leading English breeders. Since then his success with Cruickshanks blood has only been rivalled by the late Queen Victoria, and in recent years bulls of his breeding have been regularly taken back to Aberdeenshire. W. S. Marr, Uppermill, has recently bought the yearling, Bapton Diamond, and Wm. Duthie, Collynie, the calf, Bapton Champion, both out of leading prize winners at the English Royal shows.

A simple and effective cure for bots in horses is published by the United States Department of Agriculture. An experimenter tried a few tests upon a quantity of live bots taken from a horse which the bots had killed. When put into sage tea they died in 15 hours; but as that was too slow a process, he tried them in nitric acid, but it seemed to trouble them no more than water. He then bruised some tansy, and made an infusion of the juice, and put some of the bots into it. They were dead in a minute. As he had a horse suspected of being troubled with bots he gave him some tansy tea in the morning, and a dose of salts in the evening. The next morning the horse's excrement contained a pint and a half of the bots, and the cure, after repeated trials, is now said to be recognized as thoroughly effective.

Clydesdale Horse Breeders' Association.

The fifteenth annual meeting was held recently in Toronto. The report showed that more Clydesdales had been imported during the past year than in any previous year. During the year 336 animals were registered, being 54 more than last year, and 84 more than in 1898. Most of the animals registered, it was stated, were sold in Canada, and a few went to the United States. The agreement secured from the railway companies providing for the carriage of pure bred stallions at one-half the regular freight rates was favorably commented upon. It was decided to offer a prize of \$25 for the best Clydesdale stallion shown at Calgary, Brandon, Winnipeg, St. John, Halifax and Charlottetown fairs in 1901. The sum of \$100 was granted for the purpose of encouraging the importation of pure bred Clydesdale stallions into Ontario.

The meeting decided to memorialize the Ontario Government to pass such legislation as might be necessary to guarantee the owners of registered stallions payment of service fees, by making the purchasers of "in foal" mares liable for payment of such fees, if not paid by the former owners.

Officers for 1901: Pres., P. Christie, Manchester; vice-pres., John Davidson, Ashburn; vice-pres. for Ontario, D. Sorby, Guelph; Quebec, Robert Ness, Howick, Que.; Manitoba, J. E. Smith, Brandon, Man.; Northwest Territories, John A. Turner, Calgary; J. A. McFarlane, Saskatchewan; Directors, Robert Beith, Bowmanville; R. Davies, Toronto; G. Cockburn, Baltimore; A. Innes, Clinton; J. Vipond, Brooklyn; Thomas Graham, Claremont; W. Hendrie, Jr., Hamilton.

High Priced Herefords.

T. F. B. Sotham, the well-known Missouri breeder of Herefords, sold recently at Kansas City fifty head of young Hereford cattle mostly by his noted bull, Corrector. One 2-year-old female made \$1,080, and the average for twenty-six was \$477.50. The highest priced bull was a yearling at \$800, and the average for twenty-four head was \$365. The day after the Sotham sale, the Riverside Stock Co. sold seventy head, various ages, for an average of \$345, the highest, a 9-year-old cow, making \$1275. Another herd of nineteen averaged \$584, the highest priced, a 4-year-old cow, making \$3,700, a 3-year-old, \$1,325, and a 4-year-old, \$1,000. There were four days' sales in all, and prices maintained all through.

Measuring Cattle.

The following has been given as a rule of some value in determining the weight when actual weighing is inconvenient, but in all the rules given the weight will vary widely with animals of the same girth: "Cattle girthing five feet ordinarily weigh from 650 to 750 lbs, according to form and fatness; for each additional inch in girth add 25 lbs. up to six feet, and for each inch after six feet add 50 lbs." This is the simplest rule known and is probably as good as any, but the only test that is at all reliable is that of the scales.

The U. S. Department of Agriculture has issued a bulletin on the Angora Goat, which has been extensively bred in the Southwestern States during the last forty years. It can be had from the Superintendent of Documents, Union Building, Washington, D. C., for 15 cents.

At Glenlyon, before the local police magistrate, two farmers were recently brought up for selling diseased meat. Each of them was fined \$100 and costs. This is a pretty sharp punishment for a first offence, but it ought to be an effectual warning. Everybody is not so hard pressed by the law.

BREEDERS' DIRECTORY.

CARDS under this head inserted at the rate of \$1 50 per line per year. No card accepted under two lines, nor for less than six months.

K. McIVOR, Roselea Farm, Virden, breeder of Shorthorn Cattle and introducer and grower of Western (or native) Rye Grass. 9 young bulls for sale, 9 to 21 months old. Seed supply all sold.

D. FRASER & SONS, Emerson, Man. Breeders and importers of Shorthorns, Shropshires, and Southdown Sheep, Pedigree Poland China Pigs a specialty from the best strains in the U. S.

JAS. MURRAY, Lyleton, Man., is offering his entire flock of Border Leicesters for sale. This flock has won the flock prize eight years in succession at the Winnipeg Industrial.

W. M. CHAMPION, Roselawn Farm, Reaburn P. O., Man., breeder of Ayrshire Cattle, Berk-hire Swine and White Rock Fowl. A fine pair of young bulls for sale.

JAMES GLENNIE, Longburn, Man., importer and breeder of Holstein-Friesian Cattle. Bull calves of the famous Teake strain for sale. Write for prices Box 95.

JOS. YUILL & SONS, Meadowside Farm, Carlton Place, Ont., breeders of Ayrshires, Shropshires, Berks., B.P. Rocks. Young stock for sale.

P. LEBOULLIER, Clanwilliam, Man., breeder of Hereford cattle. 20 head of young stock, both sexes, from 5 to 18 mths., for sale. All reg.

JOHN TURNER, "Bonny Brae Farm," breeder of Polled Angus Cattle. Young stock of both sexes for sale. John Turner, Carroll, Man.

H. V. BYERS, Macgregor, Man., breeder Jersey Cattle. Largest herd in the west, headed by Rover Pogis, No. 41020. Young stock for sale.

JOHN LOGAN, Murchison, Man., breeder Shorthorns. Oldest herd bull, Prince Charlie, for sale; splendid stock-getter. Young stock for sale.

F. W. GREEN, Moosejaw, Assa., breeder and importer of high-class Shorthorns. Fine young stock for sale, climetized to western range.

A. J. MORRISON, Carman, Man., breeders of Shorthorn Cattle. Young stock of both sex for sale.

W. C. EDWARDS & CO., North Nation Mills, P. O., importers and breeders of Ayrshire Cattle, Shropshire Sheep and Berkshire Pigs.

J. VAN VEEN, breeder of Galloway and Hereford Cattle and Shropshire Sheep Lake View Ranch, File Hills, Fort Qu'Appelle, Assa.

HENRY LAYCOCK, Rosebank, Man., breeder of Poland China Swine. A few choice sows with pig for sale. Prices satisfactory.

W. C. EDWARDS & CO., Rockland, Ont., importers and breeders of Shorthorn Cattle, Shropshire Sheep and Berkshire Pigs.

JOHN TRAQUAIR, Welwyn, Assa. Polled Angus Cattle. Victoria's Queen mothers, Charmers, Mayflowers, etc.

JOHN S. GIBSON, Morden, Man. Young Shorthorn Bull for sale Poland China Pigs and pure bred Plymouth Rock Poultry.

L. A. BRADLEY, Portage la Prairie, Manitoba, breeder of Tamworths Young pigs for sale.

WM. CHALMERS, Hayfield, Man., breeder of Shorthorn Cattle. Correspondence solicited.

GEO. ALLISON, Burnbank, Man., breeder of Shorthorns and Leicesters. Stock for sale.

STEEL BROS., Glenboro, Manitoba. Breeders of Ayrshire Cattle. Young stock for sale.

THOS. McCARTNEY, Longburn, Man. Ayrshire Cattle. Splendid pair young bulls for sale.

LEMON JICKLING, Morden, Man. Shorthorn Cattle, Tamworth Pigs. Young stock for sale.

W. M. SMITH, Fairfield Plains, Ont. Ayrshires, Southdowns, P. China, Duroc Jersey, Poultry.

G. & W. BENNIE, Castleberry, Man. Shorthorns and Clydes. Young stock for sale. Write.

F. J. COLLYER, Welwyn, Assa., breeder Polled Angus and Berkshires.

WELLINGTON HARDY, Pomeroy, Man., breeder Ayrshires, Yorkshires, B. Minorcas. Write.

S. WHITMAN, Souris, Man., breeder of Tamworth Swine. Young Pigs for sale.

F. B. MILLER & SONS, Solsgirth, Man., breeder of Herefords. Write.

T. R. TODD, Hillview, Man. Shorthorn Cattle and Oxford Sheep. Young stock for sale.

W. N. CROWELL, Napinka, Man., breeder of Shorthorns, Berkshires. Stock for sale.

D. ALLISON, Stronsa Stock Farm, Roland Man. Shorthorn Cattle and Berkshire Swine.

W. V. EDWARDS, Souris, Man., breeder Jerseys. Herd bull and bull calves for sale.

JAMES WILSON, Tunisfail, Alta., breeder of Shorthorns. Young stock for sale.

ALEX. WOOD, Souris, Man., Breeder of Oxford Down Sheep.

J. A. S. MACMILLAN, Live Stock Agent and Importer, Brandon.

Having a large connection amongst many of the foremost breeders in Great Britain, I guarantee to supply pure-bred Horses, Cattle, Sheep and Pigs of any British breeds for exhibition or breeding purposes on the most favorable terms. Satisfaction guaranteed. Prices on application. P. O. Box 483.

WANT, SALE, EXCHANGE

Under this heading will be inserted advertisements of farm properties, farm machinery, etc., for sale and exchange, farm help wanted, articles wanted and other lines of miscellaneous advertising.

TERMS—One cent per word each insertion, payable strictly in advance, name and address to be included in the count. No advertisement will be taken for less than 25 cents.

For Sale—Brome Grass Seed at 15c. per lb. Apply to Edward Smith, Riversdale, Assa. 2-10

Pure Red Fife Wheat for seed. No smut. Geo. Thomas, 6, 4, 33, Glen Ewen, Assa. 1-6

Brome Grass Seed for Sale. 15 cts. per lb. Apply to Farmers' Store Co., Manitou, Man. 4-9

Speltz for Sale. I have for sale about sixty bushels of speltz. \$1.00 per bushel. R. J. STEWART Holland, Man. 4-5

For Sale—A few fine brouze turkey toms, will be sold cheap to make room. A good bird for \$3. E. H. Muir, High Bluff, Man. 3-6

For Sale—Shorthorn bull, fourteen months old, sired by imported Knuckleduster, out of Brambleberry by Abbotsford. A beauty. Price reasonable. J. S. Grant, Osler, Saskatchewan. 4

For Sale—One Chester White boar of April farrow. Good enough to head any herd. Price \$12.00. W. L. Trann, Crystal City, Man. 4

For Sale—Liverty, feed and sale stable, in the prosperous town of Shoal Lake. Frame barn, in good repair, size 34 x 80. Accommodation for 40 horses. Doing good business in livery and feed. Easy terms of payment. For particulars and reasons for selling apply to Gaidner Bros., Shoal Lake, Man. 3-5

For Sale—Ranch, 480 acres (Tp. 28, R. 5w 2nd) about half excellent hay land, 100 acres heavy bush. White Sand River runs through property. \$2,000 house. Stone, frame and log stable for 100 head stock, hay loft over all. Large garden, small fruits &c. Close to school and post-office. Well fenced and watered. One of best and most complete places in Province. A rare chance. Apply to A. Hutchinson, White Sand P. O., Yorkton, Assa. 2-5

You have not tried the BEST medicine for healing if you have not tried Dr. Warnock's

ULCERKURE

There are many good remedies, but none can compare with Ulcerkure. Used in both house and stable. Always use Ulcerkure for bad frost-bites, burns and scalds. Large bottles at \$1.00.

Western Veterinary Co., Winnipeg.

POPLAR GROVE HEREFORDS

Champion Herd of Western Canada.

Best Beef Cattle in the World. STURDY YOUNG BULLS for sale. Also cows and heifers. Nearly 100 head to select from. A few choice LIGHT BRAHMA Cockerels for sale.

J. E. MARPLES, Deleau, Man.

ALEX D. GAMLEY

The largest flock of Leicesters

in the West. Stock of both sexes always for sale. Will also sell a few show sheep, ready for the summer fairs.

Balgay Farm, Brandon, Man.

Farm Horses FOR SALE.

By teams or carloads. Bred from Clyde or Shire stock. Prices moderate.

High River Horse Ranch, High River, Alberta.

Brookside Stock Farm

SHORTHORN BULLS
For Sale.

One 11 mths. old, three 6 and 7 mths. old, got by Crimson Chief (24057); also my stock bull Crimson Chief, 5 yrs. old, bred by H. O. Ayearst, Middlechurch, got by President (imp.), dam Crimson Gem (a Crimson Flower) by Indian Chief. Would trade for one equally as good. Cows in calf and heifers always for sale.

ALEXANDER STEVENSON
(Successor to the late Robt. White)

Wakopa P. O., Man.

PEDIGREED COLLIE DOGS.

Scotch Collie (sable) dog pups, sired by Merlin, reserve puppy at Chicago in 1896.

Fox Terrier puppies for sale in April, sired by Norfolk Bowler, brother of champion Victorious.

Norfolk Bowler's service fee is \$20. All dogs eligible for registration.

W. J. LUMSDEN, - Hanlan, Ma.

The Tuberculin Test in Ontario.

The latest report of the Dominion Minister of Agriculture contains a very interesting report of prolonged tests made by Dr. G. W. Higginson, V. S., of Montreal, on the valuable Shorthorn herd of W. C. Edwards & Co., at Rockland, Ont. A bull calf sold by Mr. Edwards to the U. S., when tested for export, was found to react, and Mr. Edwards decided to have the whole herd tested, although to all outward appearance they were all in the best of health and condition. Of this large and very valuable herd 36 cows and heifers reacted, some of them being high-priced imported stock. By Dr. McEachran's advice, the affected animals were removed to an isolated farm, where they were treated after the methods found so satisfactory in Denmark by Dr. Bang, their veterinary treatment being put in the hands of Dr. Higginson, with the results given below in careful detail. The non-reacting herd was also carefully supervised, and the results are most encouraging to those who, through no fault of their own, have in their possession cattle not too far gone with tuberculous disease. There is ample evidence that the experiments have been made with reliable skill and care, and the publication of this report should be of great service to every one interested in the breeding of valuable cattle. Dr. Higginson's report commences with the spring of 1898 and covers his work extending over 1898, 1899 and 1900. It should be noted that in some cases both parents from which calves were bred had reacted to the test. The various modes of management are also noteworthy.

This test is all the more interesting to Canadians because we believe it is the first attempt on an extensive scale that has been made along this line in Canada. We read of it being done in Denmark, in England, and in the United States, but this is right at home. And the lesson it teaches should give great encouragement to every breeder of pure bred stock.

"Every animal in the herd was subjected to the tuberculin test and all animals which reacted under the test were separated distinctly from the animals which did not react, and since that date the two herds have been kept as positively and distinctly separated as if they had been many miles apart. The stables and premises in which the herd had been kept previous to the discovery of the disease were most carefully cleaned and thoroughly disinfected as directed by Dr. McEachran, with the use of carbolic acid, sulphur and creolin and all were carefully whitewashed. A new stable and sheds were erected at some distance away in which to house the portion of the herd which was found diseased, and in summer the two herds have been kept in separate and distinct pastures far removed, so that there has been no contact whatever since the first separation was made. In the spring or early summer of 1898 both stables and sheds on the farm were carefully cleaned and thoroughly whitewashed, and I understand the same is to be now done again in a few days, and is to be an annual process each summer hereafter on this farm. In the season of 1898-99 twelve calves were dropped from the cows of the diseased herd, three of which were lost within a few days of their birth, which loss I attribute to the immediate change to nurse cows without having any milk from their dams. Of the nine calves successfully raised, five were raised on nurse cows and four were raised upon their own mother's milk, which was sterilized before being fed to them." (This is very likely to be the case because the new-born calf requires the colostrum contained in the first milk to clear out the meconium from the intestines, so it is quite likely Dr. Higginson's explanation is the true one.)

"In May, 1899, I again tested the entire herd, including the nine calves so raised, with the following result: The nine calves here named, four of which were heifers and five of which were

bulls, all passed the test most satisfactorily, but in this test three of the cows which passed the test the previous spring reacted, and seven of the cows in the diseased herd did not react in this test. In the spring of 1899, I took a calf from an outside healthy cow, which cow I tested, but which did not belong to or have any connection with this herd, and I had it raised on the milk of one of the diseased cows, the milk being in its natural condition as taken from the cow. I also raised two late calves from diseased cows on pasture, allowing them to run with their dams the entire summer. In October I tested the three calves above stated, and all passed the test satisfactorily. In the same month, before beginning to stable the cattle, I again tested the healthy herd, all passing the test satisfactorily.

"I will now deal with the results for the season of 1899-1900. Eighteen calves were dropped from cows which had responded to the test. This season one calf only was lost and none were raised upon sterilized milk. Six of these calves were raised upon their own dam's milk, but never entered the premises in which their dams were housed, but were kept in entirely separate quarters and sucked their mothers in the open yard, not being allowed together longer than just a sufficient time for the calves to suck. Eleven calves from diseased dams were raised on nurse cows, in each case the calf sucking its own dam once before being transferred to the nurse cow.

"This spring I again carefully tested

find no trace whatever of the disease. In April, 1900, I had another cow slaughtered, whose beef was sound and good, but I found slight traces of the disease in each of the lungs and liver. Again, in May of the present season two cows were slaughtered, in neither of which any signs of the disease were perceptible to the naked eye. One of these cows and the one killed in December, 1899, which showed no trace whatever of the disease were included in the seven which were among those which reacted in the spring of 1898, but which showed no reaction in 1899.

SOME LESSONS.

"The foregoing gives as briefly as I can put it the result of the experiments which have taken place, and the results from slaughter from this herd since my appointment by you in the spring of 1898, and if you will allow me, I will give you the deductions which I personally draw from the experiments which have taken place. First, there is now no doubt whatever in my mind but that with reasonable care tuberculosis can be eradicated from any herd, and it is not at all necessary or desirable to slaughter valuable breeding animals. Nor do I consider it essentially necessary that the large expense W. C. Edwards & Co. have gone to need be gone to the full by others in their desire to profit by the satisfactory and valuable experiments that have been carried out on their farm. Reasonable separation I consider desirable, and good drainage, good ventila-



Ten Head of Pure-Bred Polled Angus Cattle.

Recently sold by Hon. W. Clifford, Austin, Man., to J. R. Westing, Tinney, Minnesota.

the entire herd with the following results: In the healthy herd, including in its number the four heifers which were raised the previous year from diseased cows, all passed the test most satisfactorily. Of the six calves raised on their own dams as described, five passed the test and only one responded. Of the eleven calves raised upon nurse cows as described, ten passed the test and one only responded. In this test eleven cows in the diseased herd showed no reaction. In this eleven were included five which showed reaction in the spring of 1898, and were included in the seven which showed no reaction in the spring of 1899. The remaining two of this seven were slaughtered.

"Since the time I took official charge of this herd, all animals slaughtered from the herd were slaughtered under my supervision and inspection. In November, 1898, twenty-two animals were slaughtered. Of this number I condemned four as unfit for food. In the eighteen animals whose beef I found perfectly good for food, slight traces of the disease were found in the lungs, and in some instances in other internal parts, but in each instance the beef was perfectly sound and good. In April, 1899, I had slaughtered one cow whose carcass I found perfectly sound and good, but found slight traces of the disease in the lungs. In June of the same year I had another cow slaughtered, whose beef I condemned as unfit for food. In December, 1899, I had two cows slaughtered, whose beef I found sound and good. In one case, however, I found slight traces of the disease in the lungs, but in the other case I could

tion, and plenty of sunlight, as well as general cleanliness, I consider essential in preventing or eradicating the disease. Housing cattle too closely together in dark, unwholesome and ill-ventilated stables in my mind has done more to promote this disease than any other cause. That sound calves can be successfully raised from both diseased dams and sires is fully established by the experiments that have taken place here, for I may here state that one of the three stock bulls kept on this farm is diseased and his calves come out as successfully as those of the sound bulls. Further, from the experiments which have taken place here it is clear to my mind that, while there is unquestionably danger in calves being nursed by their own dams who are diseased, this danger I, however, think exists more particularly in case of diseased udders, uterus or intestines, and in cases where the cow suffers from generalized tuberculosis; but I think it possible that many tuberculous cows may suckle their calves if reasonable precautions are taken as was done in the experiment subsequently described. I would not, however, recommend this practice, it is attended by too much risk. That the disease can be cured I am unable to say; the experiments which have taken place here do not warrant me in expressing an opinion. I am, however, firmly convinced that under such conditions of ventilation and proper housing as I have described, with separation, the disease can be checked, and in a reasonable time totally eradicated.

"I will simply add this, that the general condition of the stock on this farm,

so far as all external appearances would indicate, has been of the very best, since my experiments began; that without the tuberculin test no discovery of the disease could have been made, and, while the test may not always be infallible, all that has transpired here to my mind most strongly recommends its usefulness where honestly applied as a great means of discovering and promoting the eradication of tuberculosis."

North-Eastern Stock Growers' Association.

The following are the officers appointed for this association at its recent meeting held at Yorkton: President, Jas. Carson, Whitesand; first vice-pres., Thos. Fulton; second vice-pres., E. A. Healy, Yorkton; secretary-treasurer, F. Hukins. The provisional directors are as follows: Thos. McNutt, Saltoats, and J. Salkeld, Redpath, for Saltoats stock district; John Brown, of Mulock, and Thos. Isbister, of Fort Pelly, for Pelly stock district; Robt. Buchanan, of Devil's Lake, and Walter Tullock, of Sheho, for Devil's Lake stock district; Thos. H. Garry, of Becksburg, and John A. Snell, of Yorkton stock district; Matthew Peace, of Fishing Lake, and J. Hall, of Wishart, for Touchwood stock district; and two to be chosen for Qu'Appelle stock district.

At the recent auction sale of the late Marcus Daly's California stud of Thoroughbred horses, at New York, the race horse Hamburg was sold to Wm. C. Whitney, ex-Secretary of the United States navy, for \$60,000. This is the second highest price ever paid for a Thoroughbred at auction in America. The highest price was \$100,000 for a Derby winner a decade or so ago.

Bleeding Piles

And All Other Forms of this Common and Annoying Disease, Cured by the Pyramid Pile Cure.

Thousands of men and women suffer from some form of piles without either knowing the exact nature of the trouble, or knowing it, carelessly allow it to run without using the simple means of a radical cure.

The failure of salves and ointments to cure piles has led many sufferers to believe the only permanent cure to be a surgical operation, but surgical operations are dangerous to life and moreover very expensive and by no means always or even often, successful.

The safest and surest way to cure any case of piles, whether itching, protruding or bleeding, is to use the Pyramid Pile Cure, composed of healing vegetable oils, and absolutely free from mineral poisons and opiates.

Mr. Wm. Handshu, of Pittsburg, Pa., after suffering severely from bleeding piles, writes as follows:

"I take pleasure writing these few lines to let you know that I did not sleep for three months except for a short time each night, because of a bad case of bleeding piles. I was down in bed and doctors did me no good.

"A good brother told me of the Pyramid Pile Cure, and I bought from my druggist three fifty cent boxes. They completely cured me and I will soon be able to go to my work again."

The Pyramid Pile Cure is not only the safest and surest pile remedy, but it is by far the widest known and most popular, because so many thousands have tried it and found it exactly as represented.

Every physician and druggist in the country knows the Pyramid Pile Cure and what it will do.

Send to Pyramid Drug Co., Marshall, Mich., for little book on Cause and Cure of Piles, mailed free to any address, or better get a fifty cent box of the remedy itself at the nearest drug store and try it to-night.

Cattle for the Farmer.

By Jas. Glennie, Longburn, Man.

I enjoyed Prof. Shaw's article in the January 5th issue very much, but I think he makes some statements that could hardly be substantiated. In referring to the dairy breed, he says:—"The Holstein has been raised at because of the low quality of milk which she produces, but she has never been given due credit for the abundance and excellence of the skim-milk she has given to the farmer."

Prof. Shaw must surely know that the Holstein stands to-day with an unbeaten record for butter production; that within the last few years thousands of official tests—that are indisputable—prove that she stands to-day without a peer in America as a butter producer. In Europe no cow lives that can approach her. Talk of skim-milk, with whole herds averaging 400 lbs. of butter a year!

He then answers the question:—"Should the dairyman try to grow his steers into beef?" with an emphatic "No," unless he wishes to get rid of his money." I am willing to admit that steers from a dairy sire cannot be profitably brought up to the condition of the animals exhibited at the last Chicago fat stock show, or our Christmas shows. But I will not admit here in Manitoba, where thousands of acres of good grass and thousands of tons of good straw are burned every year, that such steers cannot be raised up to good butcher's cattle. I can to-day get any number of grade Holsteins, two and three years old, that but for color could not be told from grade Shorthorns. This season we killed a grade Holstein,



Holstein Cow, Daisy Teake's Queen.

The property of James Glennie, Longburn, Man. This cow has repeatedly won first place at both Winnipeg and Brandon Exhibitions in the milking tests. Though now ten years old, she did better at Brandon Exhibition last year than the winning cow in the milk test at Toronto. From May 7th to December 7th she has given 11,000 lbs. of milk, and is expected to reach 13,000 lbs. within the year. Her regular ration now is oat straw, chop and bran.

under two years, that dressed about 500 lbs. He was fat and tender, and never had a handful of grain.

I will not speak for the Jerseys or Ayrshires. I will leave that to the owners of those breeds. But I will say the Holstein cow will produce more value in her year's production of milk and in her calf, either as veal or as a butcher's steer, than will a cow of any one of the beef breeds of cattle.

A CHALLENGE.

I am prepared to back this statement with a sufficient sum of money to cover the cost of making a test as follows:

The cows to be typical pure bred animals of the breed, and, to ensure this, they must have been show ring winners. Each cow is to be milked for a year, an account kept of the weight of milk and the quality as ascertained by the Babcock test. The correctness of the test to be checked by occasional visits, without notice, by the Government Dairy Superintendent, who will remain over one day, weigh one day's milk and test it. The calves, when old enough to take skim-milk, to be sent to the Experimental Farm at Brandon and to be fed alike until, say, two and a half years old; to be then slaughtered and carcass, hide and tallow sold on the open market. The value of each to be added to the product of the cow. The owner of the losing cow to pay the cost.

The Professor then goes on to speak of the great demand that there is for the dual purpose cow. Hoard's Dairyman does not seem to agree with him in this. In a late issue it says: "It is a lamentable fact, but true nevertheless, as every Shorthorn breeder can testify, that a Shorthorn calf of dairy type is practically unsaleable."

Mr. Gooderich, of Wisconsin, in an address before one of the dairy conventions lately held in Ontario, in speaking of the dairy type of Shorthorn, says: "There were a few of them on exhibition at the World's Fair at Chicago, but they would be of no more use for raising beef steers than the scranniest Holstein you ever saw."

Prof. Shaw sets down four propositions to prove that such cows, meaning, of course, beef breeds, will always predominate on the average farm:—

1. "Good milk production and good beef production are not incompatible in the same animal." That is true, and we have it in a more general degree among the dairy breeds, particularly among the Ayrshires and Holsteins, than among the beef breeds. It is indisputable that many cows of the latter breeds do not give milk enough to rear their own calves, and cannot be made to milk more than four or five months after freshening, simply because they have been bred to turn all their food into fat and put it on their backs instead of into the milk pail.

2. "Growing animals for milk and meat will insure the more profitable consumption of all the varied food products grown on the farm." I believe this to be incorrect, and that a herd of cows in milk will consume and otherwise turn more rough, cheap fodder into manure than twice the number of young cattle.

The third proposition is correct and will be more profitable in proportion as their milk production is a large one, without regard to the value of their calves.

4. "Such a system of cow-keeping is a necessity to keep in equilibrium the production and market values of dairy products." I hardly understand this, but would say that while the conditions under which milk and beef are produced remain as they are, the dairy end of every cow will continue to be the most profitable on high-priced, cultivated land. If dairying could be carried on in the range country, where cattle roam at will and get their food at little cost, the result would be that the price of beef would go up and the price of dairy products would go down. The same result would take place if all cattle had to be reared on cultivated land, more milk would be produced and less beef.

The Professor then goes on to describe the dual purpose cow and how she is to be produced. He would begin where the people of Holland, of the Channel Islands, and some of the southern counties of Scotland began hundreds of years ago. He would undo all that the Cruickshanks, Duthies, McCombies and many others have been doing the past century. Who ever heard of them selecting their stock bull because their dams or grand-dams had long and tortuous milk veins entering the body by large orifices? Some of our breeders, if asked to look for this orifice, would not know where to find it. In building up a dual purpose herd he would eliminate all that do not come up to a certain standard in milk production. One would naturally ask why this should be done? Is it not possible that the steer-producing quality of the cow might offset her deficiency in milk production?

I will not follow the Professor any further. His article opens on a very interesting and important subject, one on which there is plenty of room for discussion, but I fear it will be some time before it can be settled which is to be the victor in this battle of the breeds.

Editorial Note.—We would scarcely expect any dual purpose man to accept Mr. Glennie's challenge to put up money against picked prize cows such as Daisy Teake's Queen. But we do think the

proposal to collect a few Holstein grade steers, whose beefing value on a purely business basis could be tested against the gets of a Shorthorn bull out of ordinary farm cows should be dealt with at an early date. We would recommend Mr. Bedford to keep this in his eye as a very suitable subject for an early test. Mr. Glennie should bring down a good Holstein steer, such as he speaks of, to the next or some subsequent Industrial exhibition. It would be an object of real interest to every feeder, and especially so, if he was good enough to win in the fat classes.

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HEREFORDS.

15 young Bulls for sale.

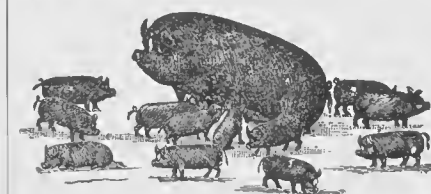
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\$1.50 per hundred and up. Send for circular and price list. Don't be afraid to send on your money, we will do the right thing with you. Keep my circular where you can find it when you are ready to order.

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The Gold Standard Herd.

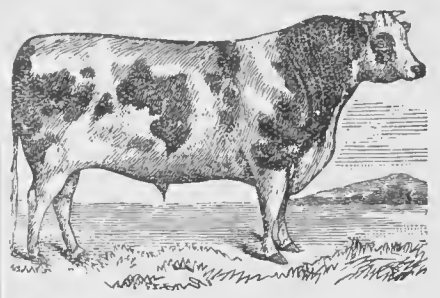


I am offering for sale a number of nice young sows in farrow, also three nice lengthy September boars, good ones. I am booking orders for spring pigs, from large mature sows of the real bacon type, and sired by two grand prize winning boars, that are bred right up in "the purple," unrelated pairs and trios supplied. Correspondence solicited. Ask for catalogue.

Address—J. A. MCGILL,
Neepawa, Man.

When writing advertisers, mention this paper.

HOLSTEIN BULL FOR SALE



15 months old, weight 920 lbs., color variegated, half of each. 2nd prize at Winnipeg, 1900. Good handler, good dairy points, teats, etc. This calf is half brother to Becky Herbert Jewel 33 lbs. milk in day at 2 years old, testing 8.2 per cent. butter fat. Dam Becky Herbert, a prize winning cow. Sire by stock bull Sir Pieterjie Josephine de Kol, one of the best bred bulls in Canada. Price of calf \$75.00.

A. B. POTTER, Montgomery, Assa

PIONEER HERD OF SHORTHORNS



I have been breeding Shorthorn Cattle right here for over a quarter of a century. I breed my own Show Cattle, and last year had at the Winnipeg Industrial the Gold Medal Herd. First for Bull and two of his get, and first for Cow and two of her prog

eny. I usually have stuff for sale and am always pleased to show it.

WALTER LYNCH, Westbourne, Man.

FOR SALE.

10 Young Shorthorn Bulls

Age, from 10 to 16 months. Our herd was awarded in Toronto, 1900 first prize for best herd of one bull and four females, first prize for Breeders Herd of four females, also Gold Medal for female any age. The herd has produced such bulls as Barker, Lord Stanley, 5 times first and a sweepstakes winner in Chicago 1893, Moneyfuffel Lad, three years sweepstakes bull in Toronto, and Topman, 1st prize and sweepstakes, Gold Medal in Toronto, 1899.

J. & W. Russell, Richmond Hill, Ont

Shorthorns

SEVERAL BULL CALVES FOR
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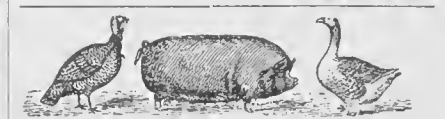
From seven months to one year old. Head of the herd, Lord Stanley 25th. Correspondence solicited.

Walter James - Rosser, Man.

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24 SHORTHORN BULLS
30 " FEMALES

For sale. They are a good strong lot. Write to JOHN S. ROBSON, Manitou, Man.



A lot of nice young

BERKSHIRE SOWS

Unbred. Price \$15.00.

Orders booked for spring pigs.

Barred Plymouth Rock Eggs in season.

WM. KITSON, Burnside, Man.

J. E. SMITH

J. E. Smith offers for sale 45 Shorthorn Bulls, all ages. A number sired by Lord Stanley II (22280) Some (imp.) from Ontario. All this year's crop of Golden Measure (imp.) calves are sold. 40 Shorthorn Heifers, from 6 months to 2 years old. 60 Shorthorn Cows, all ages. A few young Clydesdale stallions, mares and fillies of all ages for sale. Everything for sale except my stock bulls, Lord Stanley II and Golden Measure (imp.) and the Clydesdale stallion Prince Charlie (imp.). Come and see the stock.

J. E. SMITH, P.O. Box 274, Tel. 4, SMITHFIELD AV BRANFORD

YORKSHIRES.

Two choice fall litters ready to ship—one from the 1st-prize yearling sow at Winnipeg and Brandon Fairs in 1900. Also a few choice boars for service, and sows ready to breed. Address—

KING BROS., Wawanesa Man.

Cows on Shares.

Some time ago The Farmer was asked to give particulars of the way in which stock could be let out on shares. A subscriber at Wolseley favors us with a copy of his contract for letting cattle on shares, which may prove useful to others who wish help in framing such an agreement. Should the parties be well-known to each other and the contract be faithfully carried out, the ar-

English Calf Rearing.

The County Councils of Cumberland and Westmoreland, in the north of England, maintain a very useful experimental farm, on which cattle rearing, one of the most important farm industries in the district, has a prominent place. Within the last five years 90 calves have been reared on this farm, and only one, which died from internal trouble at its birth, was lost out of the lot. The man-

cordingly, but it is better to keep on with the milk till the calf is nine months old.

Canadian Holstein-Friesian Association.

The annual meeting of the association was held in Toronto recently. The financial report showed the association in good standing. It was decided to establish a system of advanced registration

to the Industrial, to be appropriated as the association's delegate sees best. A part of the money may be used for making a special exhibit by themselves of Record of Merit animals.



Snapshot taken at the last Virden Plowing Match.

angement will be profitable to both.

COPY OF CONTRACT.

This agreement, made this...day of, between A. B., of Township, ..., in Range ..., west of ... meridian, in the Northwest Territories of Canada, farmer, and C. D., of the same place, farmer.

Witnesseth, that the said A. B. hereby agrees to let to the said C. D. cows on shares for the term of three years from the date hereof.

And it is hereby agreed between the parties that the said C. D. shall have the use of the said cows and shall properly care for and feed them during the said term, and shall take due care to have all the said cows raise calves each year, and shall deliver the said cows up to the said A. B. at the end of the said term in good condition, and in case any of the said cows shall be lost, die or be injured during the said term through the default or neglect of the said C. D., he (the said C. D.), shall be responsible to the said A. B. for the loss caused thereby, and the said A. B. shall be entitled to be repaid for such loss from the share of the offspring of such cows coming to the said C. D. The said A. B. to bear the loss in case of death or injury to any of the said cows arising from any other cause.

The offspring from the said cows to be equally divided at the end of the said term between the parties, the said A. B. to have the first choice, and thereafter each party to choose alternately.

The said C. D. to properly care for and feed the said offspring during the whole term and not to remove the said cows or offspring or any of them, or suffer them to be removed at any time more than ten (10) miles from the Municipality of

Provided that in case of default by the said C. D. in any of the conditions of this agreement, the said A. B. shall be entitled at any time to retake possession of the said cows and also to take the share to which he may be entitled of the said offspring.

In witness whereof, the said parties have become subscribers, their names, signed by the said A. B. and said C. D. in presence of E. F., witness.

A. B.
C. D.

Miles City, Montana, is up in arms against a local butcher who purchased forty head of lumpy jaw and crippled beef, rejected from an Indian contract, and commenced retailing the meat. Complaint was made to the secretary of the Montana Stock Association and to the State Veterinarian. The latter says that lumpy jaw is not a contagious disease, and says there is no law in Montana to deal with the case in point. He advises getting such a law on the statute books.

ager, Mr. Lawrence, thus reports on his methods:—

When a calf is born, it is immediately removed to a pen well-littered with dry straw, rubbed well with straw, and covered over with a little of the same material. In half an hour the calf is fed, by means of the fingers, with about a pint of its mother's first milk, at blood heat, which forms the first meal of the day. During the first week the calf has nothing but its mother's warm milk, getting a pint and a half three times a day at first, and a quantity gradually increasing to two quarts at the end of the week. On the third day the young animal is taught to drink without the fingers. The food is the same, two quarts three times a day through the second week, while, in the third week, half the milk is separated or skimmed, half a pint of linseed soup being added to it, to take the place of the cream. In the fourth week, the only alteration is the addition of a handful of sweet hay twice a day. In the fifth week the diet consists of two and a half pints of warm separated or skimmed milk, with half a pint of linseed soup mixed with each quart, three times a day, and a little sweet hay night and morning. This diet is continued to the end of the eighth week. After this the linseed soup is

similar to what the American association have in their Advanced Registry. The title of the Canadian one will be The Record of Merit. The expense of making the test will be borne by the owner, and it will be made by officials of the Ontario Agricultural College and the various dairy schools.

All parties to the making of the test will be sworn, so that the truth of the statements made may be relied upon. Animals to secure registration in the record must make a minimum performance according to the following scale: Animals from two to three years old must produce at least eight and one-half pounds of butter fat within the week; animals three to four, ten pounds of butter fat; animals four to five, eleven and one-half pounds, and animals above five years old, to be eligible, must produce at least thirteen pounds of butter fat in the seven days. Those that come up to the standard will be credited with their performance in the association herd book. In addition to this, bulls that have four or more daughters recorded in the Record of Merit shall themselves be recorded in the same record without charge to the owners. When a cow makes an abnormal performance, a second test, covering twenty-four hours, shall be made by a second officer at the



Threshing on the Farm of S. Brayford, Cannington Manor, Assa.

omitted, a handful of broken linseed cake and a small quantity of pulped swedes being given after the mid-day meal, or grass in summer instead of swedes. From the beginning of the twelfth week the mid-day milk is omitted, $\frac{1}{2}$ lb. of linseed cake and crushed oats together being given at mid-day, with half a gallon of pulped swedes or some grass at noon, while the separated milk and hay are given in the morning and evening. If desirable, the milk may be discontinued when the calf is five months old, and other food increased ac-

expense of the association. Cattle to be eligible for registration must of course be first entered in the Canadian herd book.

An effort was made to have prizes given to the leading winners in each class, but it failed, as it was thought of sufficient value for the present to have the winning animals recorded.

It was decided not to give a grant to the Toronto Industrial for a milk test, as the past few years the principal support has come from the Holstein men. A grant, however, of \$100 was given

Three cars of cattle, including 150 fowls, have been recently selected for them through A. P. Westervelt, secretary of the live-stock association, assisted by Mr. Hodson, Dominion commissioner. The lot includes a considerable number of young Shorthorns from leading breeders. One or two Ayrshires and Holsteins were also bought. About 30 sheep of choice quality and 20 swine made up the consignment. The lot will be shipped to New Westminster and sold the same way as last season's importations.

Thick or Thin Slop for Pigs.

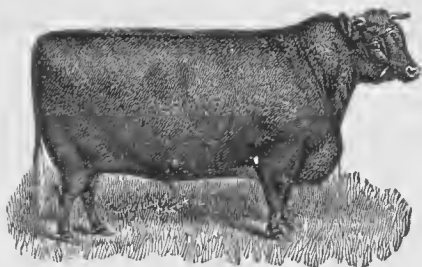
Many persons make ground feed just wet enough to pour from a pail, others feed it quite liquid, while others again feed it dry. Which is right? At the Swine Breeders' convention last year, when the question of wet and dry feed was up for discussion, Prof. Henry said that he first thought feeding dry gave the best results, but fuller experiment showed that wet feed did, but he did not say how wet, and thought that feeding dry would give the best results in very cold weather. In this others agreed.

The Indiana Experiment Station recently undertook to find out how much water with ground feed would give the best results. Some 16 Chester White and Yorkshire pigs were put up to feed and divided into four lots of 4 each. When put up the pigs averaged about 60 lbs. each. Lot 1 was fed their meal dry. The other lots had water added to their ground feed. Lot 2 an equal weight, lot 3 twice, and lot 4 three times the weight of grain fed. Besides this the pigs in lots 1 and 2 were given all the water they desired, but a record was kept of the amount they used. They were on feed 146 days, and their feed consisted of pure corn meal and shorts; later a little hominy took the place of the corn meal. To make one pound of gain, lot 1 required 3.59 lbs.; lot 2, 3.80 lbs.; lot 3, 3.74 lbs., and lot 4, 3.75 lbs. of grain. This is very close work with the results in favor of dry meal. Lot 1 drank 3,374 lbs. of water; lot 2, 3,031 lbs.; lot 3, 4,871 lbs., and lot 4, 6,927 lbs. An equal weight of water added to the oatmeal was not sufficient to satisfy the wants of the pigs in lot 2, and undoubtedly lot 4 had too much. At the beginning of the experiment, when averaging about 60 lbs. a piece, the different lots used 2.35, 2.42, 4.25 and 5.79 lbs. of water respectively per head per day. At the close of the experiment, when averaging from 213 to 222 lbs. a piece, the water consumed was 11.07, 8.17, 14 and 18 lbs. respectively per head per day. There was no material difference in the appearance of the pigs in either lot so far as quality was concerned. The results of this experiment go to show that the proper amount of water to feed mixed with ground grain is about twice the weight of the grain. However, in view of the fact that the pigs fed dry grain made the cheapest gain, it would appear that there is really no gain in feeding pigs a slop instead of dry meal, excepting as the feeder regards it as a matter of convenience.

The veterinarians of the Dominion Department of Agriculture report that of about 45,000 head of fat cattle shipped out of the Territories last year only about 50 were found diseased. Only 4 cases of tuberculosis were reported, 2 at Prince Albert and 2 at Maple Creek. The inspector at Montreal reports that these cattle were as a whole in much better condition than those of former years.

A veterinary officer attached to the Scottish Yeomanry corps, in South Africa, has been giving his opinions since his return home. In reference to horse-flesh he says: "The best animals for work of the kind are the Basuto and Burmese ponies. Australian and other colonial breeds are also excellent, but the Hungarian horses, though very good looking, are too soft, while the Argentines are absolutely useless, and the ordinary British cavalry horse is too heavy.

A younger brother of the Marquis of Salisbury, who died recently in the south of England, ordered that his funeral should be that of a simple farmer. His coffin was drawn to the burying-ground in a farm cart. He and another brother had farmed some years in the south of Scotland, where they were extremely popular, and had given special attention to Clydesdale horse breeding. A favorite horse of that breed was used to draw its deceased master to the local burying ground.

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DUCHESS OF GLOUCESTER, JEALOUSY
And other well-known popular Scotch tribes.

"Prince Alpine" (Imp.) got by "Emancipator" (6544) at the head of the herd, assisted by "Crown Jewel 16th," first-prize winner at Toronto, '97-'98.

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12 BULL CALVES**

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Yorkshires, Berkshires, Shropshires.

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80 Fall Pigs all littered since summer fairs.

PIGS ALL AGES—BOTH BREDS.

Shorthorn herd headed by "Judge," 23419, and imported "Jubilee," 28858. The females are rich in the blood of the most famous families. Ayrshire herd headed by "Surprise of Burnside." Females of the highest quality from the best strains. Yorkshire herd headed by "Oak Lodge Mighty 7th," and a recent importation of the approved bacon type, with a large herd of females of the choicest breeding. Berkshire herd headed by "Nonpareil," with 30 breeding sows of faultless conformation and superior breeding. Farm one mile from the station. Visitors welcome.

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Of pure-bred Cattle and Swine (registered) will be conducted under the auspices of The Dominion Cattle, Sheep and Swine Breeders' Associations at

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Choice Shorthorns

FOUR BULL CALVES, 6 months old, sired by Trout Creek Hero.

COWS and HEIFERS, served by Trout Creek Hero.

This stock is of the thrifty, low-set, blocky kind, and in the right condition to do well.
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Wanted—Farmer's Sons with knowledge of farm stock and fair education to work in an office; \$45 per month with advancement; steady employment; must be honest and reliable. Branch offices of the Association are being established in each Province. Apply at once, giving full particulars. Address, The Veterinary Science Association, London, Canada.

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Large English BERKSHIRE SWINE and SHORTHORN CATTLE. Stock of all ages for sale. Orders booked for spring litters from prize winners. Satisfaction guaranteed. Correspondence solicited.
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SHORTHORN BULLS and HEIFERS, COTSWOLD and LEICESTER RAMS and EWES, BERKSHIRE BOARS

And Sows in farrow, Toulouse Geese and S. P. Rocks at bad crop prices. Write or call and see what I will do for the next 30 days to make room for young stock coming. Lyndhurst 4th, that great show Bull and Spicey Robin at the head of the Shorthorns, Fitzsimons B. leading the Cotswolds to the front, and Gallant Boy, Tippecanoe 2nd and Can't Be Beat heading herd of Berkshires, has produced the best I have ever had and can do it again.

Come and see my stock, you will be welcome. No business, no harm. Will be met at station and returned there.

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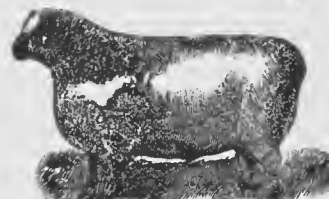
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Handling only the best of their respective breeds, we have now on hand more good young Stallions and Mares than ever before, home bred and imported, of choicest breeding, of ample size, combined with the very best quality and action. Prices in keeping with the quality of our offerings.

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Correspondence solicited. Inspection invited. Prices right. Terms easy. Full particulars on application. Apply P.O. Box 483, Brandon, Man.

Shorthorns are what we are breeding, and if you want anything in our line you may find it to your advantage to try us before buying elsewhere. **D. HYSOP & SON** 2 1/2 miles from station Box 492, Killarney, Man.

Bulls for the Range.

On the first page of our last issue was a short article by Andrew Graham, of Pomeroy, on the superior fitness of Manitoba-bred bulls for the western ranges. Some people would very naturally set down that as a mere business puff by a man who has bulls for sale. That is only a very superficial view of a question of much greater practical importance than it appears at first sight. It is quite as important, perhaps even more so, for the ranchers as for the Manitoba breeders. Hundreds of bulls are wanted there, but if they are not the very kind that are wanted, loss and disappointment to the buyers is the inevitable result. Unless the bulls they buy are sufficiently hardy and strong to suit their western environment, they are dear at any price, and it is this that makes the question of acclimation so important.

There is no doubt that if bred and handled with an eye to western requirements, bulls bred in Manitoba would be a much safer investment to the buyers than those brought up on eastern methods. It is quite probable that this important question will never be rightly settled till some breeder, or company of breeders, in whom stock growers can have steady confidence, shall undertake to breed at a suitable point or points in the Territories a class of bulls specially fitted, because carefully bred on lines that fit them for western use. Most of the present generation of breeders have come into the country since Walter Lynch, with sound forecast, introduced sheep and cattle, some of which have not been surpassed in usefulness by more loudly heralded importations of later date. The men who can remember Robin Hood will be ready to admit that no more impressive sire has ever been seen in Manitoba. Binscarth was a more recent and more ambitious venture, whose main fault was that it was a few years ahead of time and located where too few people had any chance to become familiar with the stock it had to offer. That it was the right thing and in pretty nearly the right place has been fully demonstrated by the high quality of the beef cattle of the western division of the Manitoba & Northwestern railway, all the way down through the last fifteen years. Till we see something else in the west as good, or better than Binscarth, the Territories must depend largely on outside points for their supply of bulls, and the question is where they can be best got to meet most fully the requirements of that great range country.

Everyone whose opinion is worth discussing will at once admit that every sire to be used for commercial profit must be pure bred. Shorthorns have been so far the most numerous, and are evidently most favored in the meantime. Up till now the east has been the principal source of supply. But a change has set in. Manitoba breeders have been coming forward in recent years and have sent some capital stock to the west. Along with this enterprise has come another influence which is gradually working its way in the minds of western ranchmen. Those of them who ought to be best qualified to speak say that Ontario is not a very satisfactory breeding ground for the kind of bulls wanted in the west. The conditions there are somewhat of a hot-house character. Their bulls have too much the style of grown-up babies. They have been pushed for all they were worth by their owners so as to sell well as yearlings. Any that were kept beyond that age were usually intended for show purposes or were the culls remaining after the Americans and Westerners had picked them over.

Two-year-olds are quite young enough for service on the range, but the eastern two-year-old raised on a little Ontario farm, too often housed both in summer and winter, is not the sort of beast to wear well on an Alberta ranch. This is not a speculative proposition, but a well-established fact, supported by general experience. For one thing it is now the opinion, based also on experience, that an eastern bull is a very poor stock getter his first year in the

west. He may have been sold west because a year's trial at home showed him a poor stock getter; but even if that was not the case, a bull over three when coming to his best is likely to have a too short working period to make him as profitable as he should be.

Another fault of eastern bulls in the eyes of skilled western men is that they are bred more for fine points than for virile power. A bull like Topsman can hardly find a buyer among eastern fanciers. His head and horns were fatal to his chances in the east, but he was good enough for one western man, and the writer welcomed the rough looking youngster as the fittest sire of ranch bulls he had seen for years. When we have a few more Topsmans, and men that look to the future more than for immediate effect, we will be pretty near the mark. Fine heads and fine points are not in it with virile force and robust constitution such as the Topsman type of sire is so well calculated to pass on to his descendants. And that is just the style of bulls our western breeders are now well able to produce and will soon produce in greatly increasing numbers. The other sort, whatever may be thought of them in the effete east, are too tender for a wide western range. They agree as badly with the hot all-day sun of Alberta as with its occasional spells of 30 and 40 degrees below zero, and a good many western men are getting sick and tired of them. Gordon, Ironside & Fares went down to Iowa some time ago and bought forty bulls reared under less artificial conditions than prevail in Ontario, and that lot is giving good satisfaction. The same company is now "hardening up" a lot of eastern bulls bought in the fall by wintering them in rough western sheds to prepare them for next year's usefulness.

The prevailing dissatisfaction in the west with soft-bred eastern bulls is finding expression in another form. William Martin cannot half supply the demand for Galloways, and had never such eager customers as now. The Galloway on its native heath comes nearest the kind of environment prevailing in Alberta, of all breeds except the Scotch Highlanders. Hardiness and ready adaptation to a rude environment are not the only recommendations possessed by those two old established races of cattle. In beef value they have always taken a high place, and they are likely to hold all the ground they get, once a proper footing is made.

In Alberta, as everywhere else, the principle of the "survival of the fittest" will in the long run triumph. And, no matter whether it is Shorthorns or Herefords, horned or hornless Scotch cattle, virile force and constitution in the sires are essentials to permanent success and profit.

If your yearling lambs are running with the older sheep, and are not doing well, give them separate quarters if possible and feed whole oats.

The buildings in which sheep are quartered must be thoroughly ventilated, for they do not bear confinement well. They must have fresh air, and cannot be closely confined, as cattle and pigs often are.

Col. J. H. Pickrell, secretary of the American Shorthorn Breeders' Association and one of the best known live stock men in America, died on Feb. 12th at his home in Springfield, Illinois. The family from which he sprung were all progressive farmers and capable live stock men, and his father, as early as 1828, brought good horses from Kentucky. In 1841 he brought five Shorthorns from New York State, continuing to breed them till his death, in 1870. The son was both careful and enterprising as a cattle breeder and dealer. Within the 25 years when he was at the height of his business career he was connected with herds that won \$40,000 in prizes. One bull named Breastplate he sold at \$6,250, the highest price ever paid up to that time, and his knowledge of Shorthorns was equally extensive and minute.

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Galloway Bulls
FOR SALE
—AT—
Hope Farm

Just imported from some of the prize herds of the United States.

Yearlings and two year olds, among which are prize winners at Chicago International Exposition, 1900, also at Iowa and Minnesota State Fairs, 1900.

Buyers have a chance of getting
GALLOWAY BULLS
of a quality never before offered in the North-West.

Early application should be made for prices and particulars to
T. M. CAMPBELL,
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J. A. CHAPMAN,
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Importer and breeder.
Young and aged stock of both sexes for sale.
Lord Ingleside 6th, herd bull, secured first prize and Sweepstakes at Winnipeg and Brandon Fairs, 1900.

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SHORTHORNS,
YORKSHIRES,
WHITE P. ROCKS
FOR SALE

1 Young Bull sired by Knuckle Duster (imp.)
1 Young Bull, sired by Lord Lossie 22nd. Number of choice heifers. Fine lot of young boars and sows. White P. Rock Cockerels.

JAS. BRAY, Longburn, Man.

SHORTHORNS.

Number of young Bulls and a few good Cows in calf for sale. Barons Pride (Imp) first in his class at Winnipeg, 1899, Stock Bull.

I. H. KINNEAR & SON, Souris, Man.

FOREST HOME
Shorthorns, Yorkshires, B.P. Rocks
9 BULLS 9 HEIFERS



The get of Robie O'Day (22672), 1st for bull and get Winnipeg; 1st at Brandon. The heifers are in calf to Veracity (31449)—a pure Scotch bull of great quality, an easy first at Winnipeg and Brandon.

Our Yorkshire herd is headed by imp. Surner Hill Premier (3726) and General Buller (4637). Boars and sows ready for service and breeding; also fall pigs from imp. sires and dams. Our B.P. Rocks are well known throughout the West. A choice lot of big, well marked cockerels ready for shipment.

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PURVES THOMSON,
PILOT MOUND, MAN.

Choice bred Shorthorns and registered Clydesdales. One imported Stallion & some very choice mares and fillies for sale. Two imported Bull calves and also one Bull calf from Caithness, and a few good show heifers and young cows and heifer calves for sale from Caithness.

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Steel Rollers

Built with solid Steel Heads in the Drums. Truss Rods under the Frame. Heavy 2 inch Axle. Roller Bearings, Low Down Draught, 8, 9 and 12 ft. lengths. A perfect beauty. Write for prices to



T. E. BISSELL,
FERGUS, ONT.

See page 120 for Disc Harrow

GOLD MEDAL HOME BRED
SHORTHORN HERD.



Young Bulls and Heifers for sale, sired by Nobleman (Imported), Stanley 6th, and Topsman, champion bull at Winnipeg, Toronto, London and Ottawa in 1899.

This herd also won the Open Herd Prize against all comers and first for hull and two of his get. This is the Herd to buy from.

Berkshires and Yorkshires.
J. G. BARRON, Carberry, Man

FOR SALE

R. 1/2 33, 7, 5W.
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Apply to—A. VASS, Winnipeg.

LARGE IMP'D YORKSHIRES. Young stock for sale.
OXFORD DOWN SHEEP.
BUFF WYANDOTTES. Eggs in Season.
BUFF LACED POLANDS.
S.C. BROWN LEGHORNS.
J. B. JICKLING, Carman, Man.

EIGHT SHORTHORN BULLS.

Sired by Aberdeen 2nd, from 8 months to 18 mo.ths old, for sale. My stock hull Aberdeen is also for sale, as I have kept him as long as is prudent, and any one getting him will make no mistake, as his stock will prove.
Write for particulars.

Wm. CHALMERS, Hayfield, Man.

STALLIONS AND BULLS
I am offering for sale

Roadster Stallion "Harry's Boy"
Imp. Clyde Stallion, (5069, Vol. 9.)
Shorthorn Bull, 18 months old.
Two Shorthorn Bull Calves
WM. MAXWELL, MORPANO, MAN.

Herefords Herd headed by "Sir Ingleside 2nd," descended from the famous "Corrector," include many winners at leading Fairs.
Ayrshires
ED. T. PETAR, Souris, Man.

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PATENT FLUID
NON-POISONOUS
SHEEP DIP
AND CATTLE WASH.

The Original
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Still the Favorite Dip, as proved by the testimony of our Minister of Agriculture and other large Breeders.

FOR SHEEP.

Kills Ticks, Maggots; Cures Scabs, Heals Old Sores, Wounds, etc., and greatly increases and improves growth of Wool.

CATTLE, HORSES, PIGS, Etc

Cleanses the skin from all insects and makes the coat beautifully soft and glossy.
Prevents the attack of Warble Fly.
Heals Saddle Galls, Sore Shoulders, Ulcers, etc. Keeps Animals Free from Infection.

NO DANGER, SAFE, CHEAP AND EFFECTIVE

BEWARE OF IMITATIONS.

Sold in large tins at 75 CENTS. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to Breeders, Ranchmen, and others requiring large quantities.

SOLD BY ALL DRUGGISTS.
SEND FOR PAMPHLET.

ROBT. WIGHTMAN, Druggist, Owen Sound
Sole Agent for the Dominion. 1874

When writing advertisers, mention this paper.

AMONG THE BREEDERS.

Thos. Cole, Cypress River, has sold a bull calf, twelve months old and 1st prize at Cypress River last year, to T. Stinson. The price was \$80.

John S. Gibson, Morden, Man., Feb. 6, 1901: "I find an advertisement in The Nor-West Farmer a proper investment, as from the very first issue in which my advt. appeared we saw a good result."

J. A. Fraser, Portage la Prairie, reports the sale to Reeve George Little, High Bluff, of the Shorthorn yearling bull which won second place at Portage la Prairie last summer. The purchaser also secured a pair of Berks from Mr. Fraser.

J. A. S. Macmillan, Brandon, Man., has sold his imported stallion, Garland, to John Cowan, of Gainsboro. This horse is a son of old Macgregor and Prince of Wales on the dam's side, so is very well bred and should prove a great success in his new owner's hands.

Wm. Kitson, Burnside, Man., writes that on account of being sold out of everything except Berkshires and fowls for breeding, he cannot fill any more orders, and wishes those who have written him to accept this as an answer to their correspondence.

R. McLennan, Moropano, writes: "Since last writing I have sold the 2-year-old heifer, Clementine 3rd, to Bert. Waby, of Holmfild, and Cleora 4th and calf to Hon. T. Greenway, Crystal City. The remainder of my stock are doing well."

Chisholm & Chambers, of Griswold and Oak Lake, recently purchased a bunch of thirty-three Herefords, ranging in age from 12 to 18 months old. They come from the herds of W. H. Hunter, Orangeville, and W. S. Hunter, Durham, Ont. Of the lot 26 are bulls, some of them prize winners at last fall's shows in Ontario. The purchasers have arranged to have this shipment reach Oak Lake about the first week in April. These young Herefords should prove a welcome addition to the stock of sires in the west.

W. J. Lumsden, Hanlan, Man., has recently imported from George Gooderham, Toronto, a noted prize winning fox terrier bitch, Norfolk Vallere. This bitch was bred in Devonshire, England, by Bickery, who described her as Valuator's best bitch. She is the winner of three first and special as the best terrier in the show at Barnstable. On this side she has been the winner of ten firsts and two seconds at Toronto, New York, Chicago, Pittsburg, Washington, and Atlanta. For quality these dogs are hard to beat. His Collies are of the choicest breeding and nearly all from prize winning stock of great merit, which are well known in the province. They are of the best working strain, and anyone wanting a good dog should correspond with Mr. Lumsden.

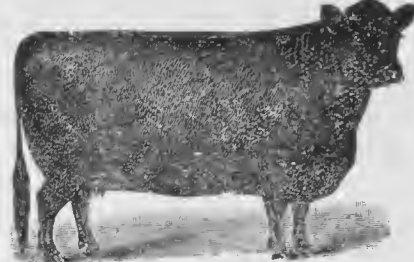
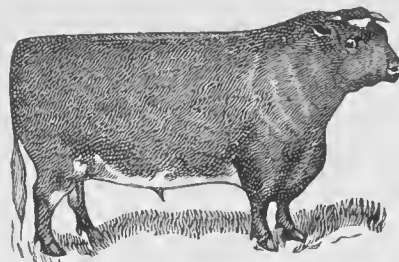
H. O. Ayearst, Middlechurch, Man.: "My stock are coming through the winter in fairly good shape, and although it did look last summer as if we were going to have a feed famine this winter, we are going to pull through all right, and will have a little left over. As a result of having sold Crimson Sirdar (the sweepstakes Shorthorn bull in the C. P. R. special class at the Winnipeg Industrial and also sweepstakes at Kildonan and St. Paul's fall show), to O. H. Smith, in the Wetaskiwin district, I have just sold the 11-months-old bull calf, Crimson Duke, 2nd at Winnipeg for calf of calendar year and 1st for under a year at Kildonan and St. Paul's, to J. C. McKay, of Wetaskiwin. Crimson Duke is a very promising young bull, and I believe, with proper care, will develop into something extra good."

Mr. McKay, in writing me says he was induced to send to me for a bull after seeing Crimson Sirdar and another bull which I had previously sent there. At present I am sold down very low, but still have one very nice roan 10-months-old bull calf to spare, by President (imp.).

Mrs. E. M. Jones, Brockville, Ont., needs no introduction to the people of Canada. Her little book on "Dairying for Profit, or The Poor Man's Cow," is well known, also her great success in developing and breeding a herd of first-class Jersey cattle. Though not keeping so many as she used to do, she has now a choice herd of about forty head, at the head of which is Prince of Belvedere, 5 years old, a capital bull of the richest breeding. He is assisted by his son, Goden Prince, a 3-year-old of great merit, and preferred by some to his sire. Both bulls are of noted individual merit or they would not be at the head of Mrs. Jones' herd. She recently sent the same day three young bulls to three different provinces. This shows the demand there is for her stock; in fact, it is with difficulty that the herd is kept together. Purchasers insist on having first one and another of her stock, no matter at what price. It would be useless to particularize about the females in such a herd, all are selected for conformation and ability. Not being able to keep a large herd, nothing but the very choicest is kept, consequently merit stands out in every animal in it, not a cull being present.

Thomas Speers, Oak Lake, Manitoba, writes: "I have returned from Ontario with a carload of pure bred Shorthorn cattle. I visited several of the leading Ontario breeders and find that real good cattle are dear and hard to buy, the Americans having picked up the good ones at high prices. I bought of H. Cargill & Son, Clan McKay (imp.), a thick-fleshed, short-legged and smooth bull, with a grand breast, being very wide between the front legs, with a capital back and head. Clan McKay is a dark roan 22 months old, and looks like one that ought to be a superior sire. He is sired by Clan Alpin (60495), by the Bravith Bud bull, Gandmore (55851), dam Carline, by Cumberland (46144). I also bought Empress of India (imp.), with a nice roan bull calf at foot. The calf is by Lord of Strathbogie (imp.) (52071). Empress of India is coming 3 years old, a roan in color, and sired by California (70082), tracing to the Miss Ramsden family. I also selected one red cow, Buttercup (imp.), and her heifer calf, also imported. Buttercup was got by Merry Mason (67486) by that grand old sire, William of Orange (50694). I selected this cow for John H. Kinnear, of Souris. She has gone into good hands and will likely be heard from later. I bought off John Isaac, Markham, the red heifer, Fancy Ury XVI, sired by Golden Digger (23360), dam Ury Maid (imp.), also a red bull calf, 9 months old, Lord Roberts (35024) sire Golden Digger (23360), dam Ury Gem. From O. & D. Brown, Iona, the red cow Beatitude, 5 years old, sired by Royal George (imp.) (17106), and the young bull Burnbank, a dark roan, 10 months old, sired by Scotland Yet (23375), dam Character (26498). These cattle were all selected personally, and are of the real Scotch thick-fleshed and early-maturing sort that ought to give a good account of themselves."

A suggestion as to horse-shoeing for the icy roads has been made, which is passed on for what it is worth. It is to take a scrap of the hard steel blade of a mower—the hardest steel that can be got—split the soft iron caulk of the shoe and insert and weld in the piece of mower blade, as the steel edge is inserted in an axe. It is claimed that caulks so made will last and keep sharp for a very satisfactory period, the soft iron of the original caulk on each side of the piece of mower blade wearing away as fast as the mower blade does, and so leaving the caulk always sharp.



THE FIRST ANNUAL,

AUCTION SALE

AT BRANDON, March 12th, 1901,
at T. E. Kelly's Sale Barn

Thirteen Shorthorn Bull Calves

From 11 to 16 months old. My calves are rich and new blood from some of the best families in Ontario, and would make good heads for any herd in the West, having imported their mothers from Ontario a year ago last July. Stock on exhibition at Kelly's barn a week before sale.

SEE NEXT ISSUE.

Aberdeen Stock Farm.

A. B. FLEMING, Brandon, Man.

LARGE ENGLISH BERKSHIRES

Four Boars of February litters at \$7.00 each, second litters now coming will be sold at \$5.00 each. First come, first served. Two first prize Boars at head of herd. Pairs not akin.

JOSEPH LAIDLER, Neepawa.

MAPLE GROVE FARM

Portage la Prairie, Man.

SHORTHORN CATTLE and
LARGE ENGLISH BERKSHIRES.

Stock of my breeding has taken honors at the Winnipeg and Portage Fairs in 1900. I have a splendid pair of young bulls, and swine of both sex, for sale. J. A. FRASER, Proprietor

Something Practical.

We tested Herbageum thoroughly on poultry and got remarkably good results. We also fed it with skim-milk to calves, and they did better on that feed than we ever had calves do on new milk. It prevents all scouring.

BELYE BROS.

Oakville, Ont.

I have used Herbageum for several years with my cattle and pigs, and find it very beneficial and economical, and purpose to continue its use. It was fed to my three Tamworth hogs which took the 1st, 2nd, 3rd and special prizes at the Guelph Fat Stock Show, 1893. It was also fed to my Guernsey bull, May Roseberry, winner of the 1st prize and silver medal at the Toronto Exhibition, 1894; and to my Guernsey bull, Dandy of Oxford, winner of a 2nd prize at the Toronto Exhibition in 1894.

ISAAC HOLLAND,

Breeder of Guernsey Cattle and
Tamworth Swine.

Culloden, Ont.

We have used Herbageum in our livery stable and find nothing else to equal it for fitting up horses that have run down, thin and are bad in their coat. It is death to worms, good for the kidneys and wonderfully improves the blood and general condition as shown in the coat, eye and spirit of the animal.

ALF. & GEO. HILMER.

Oakville, Ont.

I feed Herbageum to my ewes, both before and after lambing, and find it very advantageous. As soon as the lambs will eat, I give a little in their food regularly, and it shoots them right along. Also find it first-class for milch cows, and last season I fed it to my turkey chicks, and did not lose one through weakness or disease.

WM. SWAN.

Willows Ranch, Austin, Man.

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Janesville, Wisconsin, U.S., Importer
of CLYDESDALES, also Shires, Suffolks,
PERCHERONS AND HACKNEYS.

20 years at the top.

THE GALBRAITH STUD has long been famous from the Atlantic to the Pacific for its excellence. Present stock better than ever.

We won 78 per cent. of all the prizes offered for Clydesdale stallions at the State Fairs of Iowa, Illinois and Wisconsin last fall, also the first prize at the International Live Stock Show in Chicago last December. Inspection invited. New Catalogue ready. Write.

D. McBETH, OAK LAKE
MAN.

BREEDER OF

Clydesdale Horses

AND

Shorthorn Cattle



I have a number of promising young Stallions for sale.

My shorthorn herd is headed by "Best Yet," bred by Hon. John Dryden, of Brooklyn, Ont. A number of young stock of both sexes, all registered, are for sale, and can be recommended as first-class animals.

Correspondence solicited. Prices right.

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For sale at all times. Apply to

H. R. KEYES,

Keyes, Man.



A QUICK, SHARP CUT

hurts much less than a bruise, crush or tear

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As it is desired to make this column as interesting and valuable as possible to subscribers, advice is given in it free in answer to questions on veterinary matters. Enquiries must in all cases be accompanied by the name and address of the subscriber, but the name will not be published if so desired. Free answers are only given in our columns. Persons requiring answers sent them privately by mail must enclose a fee of \$1.50. All enquiries must be plainly written, and symptoms clearly but briefly set forth.

ANSWERS TO QUESTIONS.

Cause of Death Wanted.

A. B., Assa.: "Mare about 1,600 lbs. was due to foal on April 15 or 20. On 17th inst. she apparently tried to foal, when she must have ruptured some blood vessel and bled to death. Called in local V. S., but could not do anything, as she was already too much weakened from loss of blood for medicines to do any good. She lived some ten hours. She did not foal, nor did she strain very much after bleeding so profusely, but kept looking around as if expecting to see the colt. She was in good healthy condition as far as flesh goes, and was all right till she commenced to abort. I did notice, however, some weeks ago that there was not as much life about her as her condition would warrant, and particularly her hind-quarters. There was nothing, as far as I could see, specially wrong, because she has been walking a little over half a mile every day to water, and, when mild, remained outside a few hours. The snow being deep, and her a heavy mare and drawing on towards foaling, I was not surprised at her being rather slow in her movements. But whatever it was, it kept growing on her, when a week or so before she died she did not care to go round in the stall at all, and if she turned short it would almost throw her off her feet; she would always roll, though, when turned out, and could get up all right. I noticed the stiffness in her hind-quarters from early part of winter. Opened her, but could see nothing particularly wrong. 1. Can you tell what was wrong? Was abortion the cause of her death, or was abortion only the result of some internal derangement which caused her death? 2. How long before foaling does the foal come to life? 3. Will wheat that has been slightly heated, when chopped, boiled and fed sparingly, have any tendency towards abortion?"

Answer. — 1. Your letter is indefinite on some points necessary to form a correct idea of the case. Did the mare begin to abort before the hemorrhage took place, or did the bleeding come first? The hemorrhage might have been the result of an accident to a blood vessel, followed by abortion, or the straining to abort might have caused rupture. Of the two suppositions the former is more likely to have been the case, for abortion at the eighth or ninth month usually takes place with very little straining. It would have been of great assistance in answering your question to have known where the blood was coming from, whether from a rupture in the womb or vagina, or from the inner surface of the womb, but this does not seem to have been ascertained at the post mortem. The mare's health was evidently suffering from some cause or other, some time previous to the fatal accident, but there are not sufficient data upon which to form an opinion as to the cause.

2. The foal is alive as a foetus during the whole period of gestation, but does not show any movement in the mare until the eighth or ninth month.

3. Yes. The fact of boiling the wheat will not prevent it from having an injurious effect on some animals. Much depends upon the amount of damage the wheat has received and the quantity fed.

Cause of Death—Lumpy Jaw.

Subscriber, Hillesden, Assa.: "1. I had a cow die on the 25th of this month. She was three years old, had a calf last June, was milking and due to calve in June again. She had never been sick. When she was let out of stable on day mentioned at noon she appeared to be in perfect health. When putting cows in stable at half-past three o'clock she did not come, but was lying down, and when made to get up went a few yards, then fell on her knees and would not move for ten minutes or more; then she got up herself and stood still and shivered all over (the day was warm, not freezing). When driven to stable staggered and was quite stupid, but did not seem in pain. However, after a few minutes, she laid down, groaned and strained. She died by nine at night without getting up again. When opened, she had a hard clot of blood at the heart and thin dark blood around it. The lights, too, were very dark. All other parts appeared quite healthy. Can you tell me the cause of death, and what treatment to give, if it was not a hopeless case at first? 2. Have a 2-year-old steer with hard lump on lower jaw. I saw in your paper to use iodide of potassium, but you did not give the quantity. How much

should I give at a time? How does it set on the animal, and should external treatment be used as well? If so, what do you advise?"

Answer. — 1. Probably congestion of the lungs. Treatment: If in early stages bleed the animal, then apply mustard to the sides, administer diffusible stimulants and cover with blankets.

2. Iodide of potassium is given in doses of from one to two drachms twice daily, according to the age and size of the animal. The drug is usually dissolved in water and mixed with the food. External applications in the shape of blisters will cure some cases, but not all.

Worms.

J. H., Roland, Man.: "A horse has worms, many of them passing from him if he scours a little. I have fed him some barley sheaves, and it is then he scours just a little. The worms are about one inch or one and a half inches in length and about the thickness of a knitting needle. The horse is in fair condition, yet is never fat; he came from the ranches about two years ago. 2. Could you tell me how I can tell whether a mare is in foal or not? 3. I have a milk cow that is hearty and healthy by appearances, yet every winter she comes into the stable she fails and gets very thin. I keep her in all the time. She eats very heartily and gives quite a lot of milk for a young cow."

Answer. — 1. Starve the horse for twenty-four hours, then give two ounces of turpentine shaken up in a pint of milk. Two hours after this has been taken give a quart of linseed oil. As soon as the horse begins to purge, put him on dry feed, and give, twice daily, one drachm of powdered sulphate of iron. Continue the iron for a week and then repeat the previous treatment.

2. In some mares it is a difficult matter to decide whether they are in foal until the period of gestation is well advanced, but in most cases from the seventh month onward there is a change in the shape of the abdomen, and often the movements of the colt can be seen when the mare has just had a drink of cold water. If it is important to decide on a pregnancy before these symptoms can be detected, a manual examination can be made by passing the well-oiled arm into the rectum and feeling the condition of the womb. This should only be done by an experienced man or damage may result.

3. It is probably natural for this cow to lose flesh during the period of lactation, as most heavy milkers will not put on flesh at this time. You should feed her plenty of scalded bran and shorts.

A Peculiar Case.

J. D. Caswell, Rosthern: "About the latter end of last May a steer of mine had a stoppage in his water which seemed to be in his outward passage. Later he swelled up greatly along the belly. It came on very sudden. As there was no V.S. near I gave him a dose of salts and at same time put a knife into the swelling. In a few days he began to mend and in a month seemed to be all right and got fat. In the fall the old trouble came back and he got worse than ever. I used the salts and knife as before, but with no good result, so I kept on a large poultice for some days, which seemed to make his water easier and the swelling went down a good deal. It soon healed and started to run, then a piece of stringy matter hung out about 8 inches. This I pulled out gradually till I had nearly two feet, and if filled with water would be about two inches across. Can you tell me what this was? Was it a part of the entrails? Two weeks ago he was swollen about the purse, but that has since gone down and he seems all right. Your opinion of this case will oblige."

Answer. — In one particular your letter fails to give information on a point that it is essential to know before a correct opinion can be formed upon the case. You say "there was a piece that looked like flesh or stringy matter hung out of it," but whether "it" means the sheath or the penis we cannot tell. Probably "it" means the sheath, and if so, the "piece" was probably part of the lining of the sheath, which had sloughed off. The most likely explanation of the case is that the steer received an injury to the sheath; this might happen from a blow from a horn, or from something irritating getting into it, such as spear grass or barley beards. The sheath and neighboring parts would then swell, and the animal would have difficulty in making his water. In the first instance the swelling disappeared under the treatment adopted, but in the second, the inflammation of the parts must have been more severe, or the injury received greater, causing part of the

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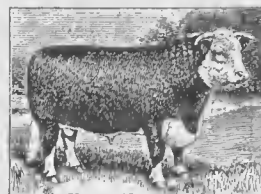
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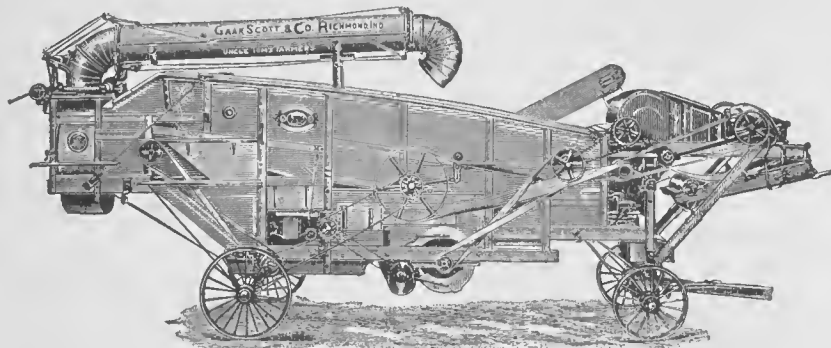
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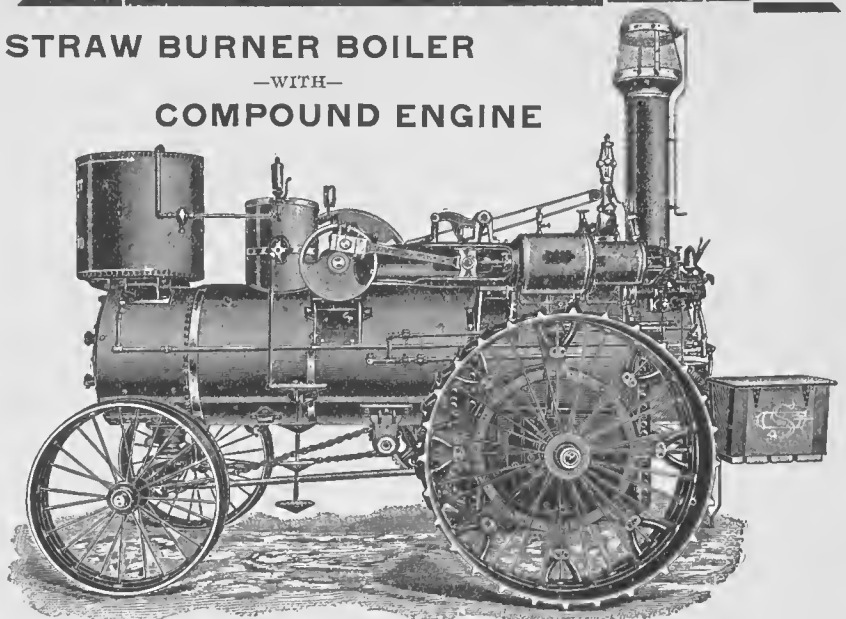
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lining to lose its vitality, after which this part was gradually separated and hung out from the opening of the sheath or "it" and resembled a piece of intestine. If this explanation is correct, the steer should make a recovery and no further trouble need be anticipated unless a fresh injury is received.

Repeated Abortion.

W. H. E., Man.: "A Shorthorn cow has cast her calf twice in succession. The first time in the summer of 1899, in the cow-yard. Cow was all right when milked in evening. Next morning or through the night she slung her calf. Calf about the size of a new-born puppy. Cow was served in fall, but came in again in March, 1900. Had no calf that year, but slung calf again last month. The calf was about the same size as previous one, but it had evidently been dead a long time in cow, as it was of a bluish-black color and almost rotten. The cow has not been sick at any time. She was at time of last miscarriage, and is now, fat. What do you think was the cause? Will she be likely to breed again? The two years previous to the first mishap she gave birth to two heifer calves, both of which are living, the oldest bore a calf last October and the other will calve in the spring. The cow is about seven years old."

Answer.—It is probable that your cow has disease of the womb, which will prevent her from again producing a living calf. Treatment of such cases is difficult and the result uncertain, so that your most profitable course would be to fatten her for beef.

Worms and Loss of Condition.

Subscriber, Swan Lake, Man.: "I have a mare, seven years old, which has been in poor condition for some time. She had what the local V.S. called congestion of the lungs last spring, but appeared to get over that all right. She had a foal in May and from harvest time on she has not done well at all. She appears to have worms and is hide bound. She eats all right. I feed boiled barley every night and about half a gallon of oats twice a day. She gets hay twice a day and straw twice a day. She was usually a good driver, but this year she has no spirits left and is very slow on the road."

Answer.—Give your mare a tablespoonful of the following twice a day in her feed:—Ground gentian, half a pound; sulphate of iron, half a pound; powdered ginger, four ounces. After she has been taking this for a week, prepare her for physic by soft feed

and starve her for twelve hours, then give a quart of raw linseed oil. When she has done purging, resume the previous treatment.

Ringworm on Calves.

Subscriber, Souris, Man.: "Can you give a cure for ringworm on calves about their heads?"

Answer.—Wash the scab off with soft soap and water and then apply with a feather—formalin, one part, water, one part. Repeat daily until cured. Be careful not to get the solution into their eyes.

Congestion of Kidneys.

E. H., Whitemouth, Man.: "I wish you would let me know through your paper what you think is wrong with my mare, coming two-year-old. About one month ago she took sick; when standing she would be continually stepping from one hind leg to the other; seems to be weak. Broke out in a sweat, lies a good deal, looks dull, but has fair appetite and is in good condition; fed on good clean hay, with one quart oats and bran three times a day. This was a month ago. She got over it, we thought, but now she is down again."

Answer.—The symptoms point to kidney trouble, probably congestion. If she gets another attack, put hot cloths across the loins and give her two tablespoonfuls of sweet spirits of nitre. At present, in order to improve her general health, we would advise you to give her a tablespoonful of the following in her feed twice a day: Sulphate of soda, one pound; sulphate of iron, four ounces; common salt, one pound; soda bicarbonate, two ounces. To be finely powdered and well mixed.

Strain of Muscles.

Subscriber, Wolseley, Assa.: "I let a mare out on prairie last fall and when I took her in a week ago she did not have free use of one front foot when she raised it. She would hold it up a second before lowering and then she would place it too far forward. She often stumbles with it. On examination of leg, I find the muscle between the knee and body is hard and stiff, more so than the other leg. Please tell me what to do for it."

Answer.—The muscles attached to the elbow have probably been strained and give the mare pain when the foot is raised and the leg moved forward. Frequent rubbing with the following liniment should relieve the pain and restore the function:—Liniment of belladonna, two ounces; liniment of camphor, six ounces. Mix.

Probably Tuberculosis.

M. L. A., Weyburn, Assa.: "Kindly let me know what is wrong with my pure bred Durham bull. Ran with cows all summer and very thin this fall (he is two years old). When stabled he would not eat half he should, same with drink. Fed boiled wheat, oat straw and good hay. Would not pick up and very short of wind. About two weeks ago noticed him always standing with his hind legs bent under him and gradually grew worse. Hind pastern joints commenced to ruckle badly. He stands just like a badly foundered horse. Is sore from the back of shoulder to over kidneys if pinched, and is getting thinner all the time. He looks to me like an animal that has pleuro-pneumonia. He lies down and gets up very often, but never hear him cough. Has hard work to get up when down."

Answer.—The symptoms point very strongly to tuberculosis and we would advise you to have him tested at once. Coughing is not an invariable symptom of this disease, and the absence of cough does not by any means indicate that he is not affected with it. There is no pleuro-pneumonia in America, so that can be excluded from the possible diagnosis.

Ringworm — Thoroughpin Cure.

R. C., Madford, Man.: "I have some calves that have ringworm around eyes and ears. 1st. Is it contagious? 2nd. What will cure it? Is lard and gunpowder good? I have seen many valuable recipes in your paper and I enclose you a receipt for thoroughpin, which I hope will be of use to a number of your readers. Take half-pint alcohol, one beef gall, one-third cup salt. Mix and rub in well two or three times a day. A horse may be worked lightly and cured at the same time."

Answer.—Yes, it is contagious.

2. Remove the scabby outer layer by washing with soft soap and water. Then apply with a feather some formalin diluted with an equal quantity of water. Two or three applications should cure. Lard and gunpowder may be good, but we have had no experience with them in combination.

Partial Paralysis.

J. B., Glenlyon, Man.: "Horse, seven years old, has partially lost the use of his hind quarters. Very difficult for him to travel in deep snow or on uneven ground. Took him to the V.S. and he said it was inflammation of the glands. Gave him his treatment, but horse is no better. What is the cause

and cure? It is very difficult for him to turn short in coming out of stall. Walks straight ahead first-rate on good footing."

Answer.—Your horse is suffering from partial paralysis of the hind quarters. The nerves supplying the muscles concerned in the act of turning round and in controlling the movements of the hind legs have become partially paralysed, so that these movements are effected with difficulty. The cause cannot be determined from the details given. It would be necessary to know more of the history of the animal, whether he has received an injury, or been affected with malarial fever, etc. For treatment, we advise a blister across the loins, combined with internal medication. Give him twice a day a teaspoonful of powdered rux vomica. Avoid backing him up or turning him around short. Feed moderately on grain, but give plenty of hay and bran.

Lice.

R. M., Innisfail, Alta.: "I have an old mare which was poor in the fall, when brought in. I have failed to get her into good condition and she is afflicted with lice. How am I to treat her so as to get rid of the lice and fatten her up? I think she must have slipped her colt early in the fall."

Answer.—You must get rid of the lice as the first step towards fattening her up. Probably the quickest and best way to do this at this season of the year will be to clip her all over. Lice will not stay on a clipped horse, and although you will have to blanket her for a time, you will also find it a good stimulant to the appetite. Should you have any serious objection to clipping the mare, you can destroy the lice by bathing the mare with creolin solution one and a half ounces of creolin to one gallon of water. Wet the mare all over with this from ears to tail and repeat the dose every third day until she is free from the vermin.

Injured Eye.

S. S., Fort Qu'Appelle, Assa.: "When I was rounding up my cattle this last fall I noticed that one of my cows was blind of an eye. There was a lump under the eye about twice the size of a goose egg. This lump broke in the fall and discharged quite a lot of matter. It is now about the size of a goose egg, still open and discharging a little. She was fat in the fall and had a calf; it is still sucking. She is still in fair condition. 1. What is the best treatment for such a case 2. Should she be kept always in the stable, or not?"

3. Which is the best way to fatten her, or could this eye be made well enough to make her a profitable ranch cow? I think this eye was made blind either by a stick in the bush or by a hook from another cow."

Answer.—1. The enlargement could probably be removed by a surgical operation. No other treatment is likely to be successful. 2. This is quite immaterial as far as the eye is concerned.

3. Wean the calf, stable the cow, and feed her well. Unless you have her operated upon you had better fatten her.

Tuberculin Test—Size of Drops.

Subscriber, Morden, Man.: "1. Will you kindly inform me through the columns of your valuable paper if there is any truth in the reports of the papers as to the tuberculin test for cattle not being reliable? 2. In Farmers' Bulletin No. 1, on tuberculosis in cattle, page 9, the dose is stated, but it does not tell the size of the drops that should be used. Will you kindly inform me if it means drops from an ordinary medicine dropper or from the hypodermic needle?"

Answer.—1. The tuberculin test has recently been attacked in several quarters on the ground that it is not infallible, that sometimes a badly diseased animal fails to react, and that sometimes a healthy animal in condemned by it. In reply to these statements it is to be remembered that the tuberculin test was never claimed to be infallible, but that it offered the most reliable means known for diagnosing the disease in its early stages. This statement is as true now as it was when the test was first discovered, and although it sometimes makes mistakes, it still remains a wonderful aid to diagnosis. The second contention of the opponents of the test, namely, that it does not reveal the presence of tuberculosis in some badly diseased animals, is not of much importance. A badly diseased animal can usually be detected without any testing, and no expert would apply the test to an animal presenting an unusually high temperature. The last contention is more serious. It is that the test sometimes condemns a healthy animal. This may be partly true, but many of these so-called failures may only prove that our other means of detecting the disease are inferior to the test. For instance, a cow reacts to the test, is killed, and at the post mortem no lesion of tuberculosis can be found. It is evident that if we accept this as proof that there were no tubercular bacilli present in the carcass, we must give the operator credit for much skill and patience in the examination. As a matter of fact, the post mortem examinations of the lower animals are not by any means complete, and it is not impossible for minute lesions in unusual situations to escape the detection of even a good operator, and how much more probable in the hands of the average man? Again, we will suppose that a cow has reacted, and after a sufficient lapse of time, has been tested again and failed to react. Are we to take this as evidence that the first test was erroneous? We know that many cases of incipient tuberculosis never go beyond this earliest stage, the disease germs are killed by the forces of nature, and the animal is cured. May we not assume with equal chances of being right that the case in question may have been one of these, and the first test revealed the presence of disease then in progress towards recovery, and that when the subsequent test took place the cure was complete?

The opponents of the test have not succeeded in their object of discrediting the test in the minds of those best qualified to judge of its accuracy, the veterinary profession, but they have shown the necessity of confining the test to its proper sphere, that of an aid to diagnosis.

The accuracy of the test depends largely upon the experience and carefulness of the man who applies it, and it is expecting too much to expect it

to be equally reliable in the hands of the inexperienced and untrained farmer.

2. The drops should be measured in a small graduated glass made for the purpose.

A Rope Burn.

Subscriber: "Horse has what I think is a burn caused by a rope wound round his hind leg below the fetlock. It is a running sore now and his leg is swelled also."

Answer.—Wash the sore with castile soap and water, dry it gently with a soft towel and then smear it with zinc ointment. This can be obtained at any drug store. Apply the salve daily, and only wash the sore when it appears necessary to remove dirt or scabs. If you are obliged to use the horse you should protect the sore from injury by applying a cotton bandage.

Swamp Fever.

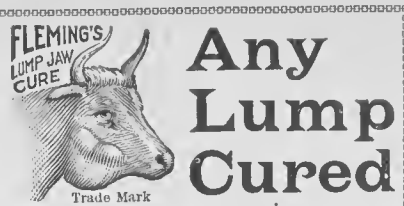
Subscriber, Lorette, Man.: "I have a horse, twelve years old, which has been taken down with swamp fever. Have given him medicine, but does not seem to improve. He has been badly swollen in hind legs and under belly, is completely run down in flesh, seems to be quite stiff in hind legs. Have fed him hay and chopped feed. Feeds all right, passes water frequently. What can be done to get him right? Will he ever be of any use if he recovers?"

Answer.—The chances of his recovery are not bright, but you might try the following:—Liquor Dinovani, six ounces. Give a tablespoonful every morning and night in the feed. When he has taken all of this, change to Ferri sulph. exsic., one drachm twice daily in the feed.

Effect of Nerving a Horse.

Subscriber, Morris, Man.: "I notice in issue of Jan. 21 cure for a cripple by nerving. Do you recommend it? I have a mare that is lame, I think, in coffin joint, was lame all last summer and I cannot find anything except hoof is a little contracted. You say by nerving the horse will be made useful for some time. I would like to know about how long this some time is and what goes wrong when that time is expired. My experience with nerving is against it. I have had three horses nerved, first one was cut just on top of hoof, and two years after the horse died of brain fever. Second horse was cut same as first one, but sold him one year after and never heard of him since. Third horse was cut just above the ankle, and in less than two years he lost all power of foot from ankle down and hoof came loose and bones gave out and he walked on his ankle when I took him out of stable to be shot. I would like to hear from some one else that has tried it."

Answer.—As a usual thing the effect is to deprive the foot of the sensation of pain in the injured or diseased part, and consequently the horse uses it as if there were nothing the matter and goes free from lameness. It does not exert any curative effect on the disease that is troubling him, and if it is of a progressive nature, such as navicular disease, the chances are that sooner or later the tendon will rupture and the horse must be destroyed. But as such a termination was to be expected if the horse had been left alone, the blame of it cannot be ascribed to the operation. The length of time a horse will work after "nerving" depends so much upon what is the matter with him that it is impossible to give any limit. Horses have often lasted several years after nerving, and with reasonable care of the feet, a horse nerved for navicular disease will work from two to four years, and sometimes much longer. The shedding of the hoof is not a frequent consequence of the operation, but sometimes occurs and is one of its drawbacks. On this account the operation should not be performed to relieve temporary lameness, but reserved for cases that are otherwise incurable.



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Telephone 295

I A Grist of Questions.

Subscriber, Brandon Hills: "1. What is the best way to kill worms in horses? Can they always be seen in the manure, or is there any other way to show their presence? 2. What do you think of giving horses physic balls, under what conditions are they necessary, and how should they be given? 3. Are salts good for horses and under what conditions should they be given? 4. How would you recommend oil cake to be given to horses? Is it a good thing to give when they are being fed on straw in winter time?"

Answer.—1. Worms in horses are not all of the same kind and what will destroy one variety may be of no use against another sort. The large white worms, often as thick as a lead pencil, are found in the small intestine and sometimes in the stomach. They are best removed by vermifuge remedies given through the mouth. Another variety, commonly known as pin worms, live in the colon and rectum and should be treated by injections per rectum. There are several other varieties, but these are the two kinds most frequently seen. Their presence is usually shown by an unthrifty appearance, an itchy tail, whitish crusts around the anus, and by seeing them in the dung. If the horse appears badly infested with the large variety and can be spared from work for a few days, he should be starved for twenty-four hours and then given the vermifuge medicine in a bran mash. Half an ounce of santonin and two drachms of tartar emetic. After he has had this down for a couple of hours give him a physic ball. Continue feeding on bran until he purges, then feed hay and oats. Following this treatment the horse should be dosed twice daily for a week with a drachm of sulphate of iron to prevent reinfestation from eggs of worms that may be left in the intestine.

2. Physic balls are useful to relieve constipation and to carry off from the system impurities that may have accumulated. For the latter purpose they frequently form part of the treatment of various diseases. Healthy horses seldom need a purgative unless their feeding has been of such a nature as to render them advisable. As to the manner of giving a ball, it should be remembered that the horse should be prepared for it by previous feeding on

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bran mashes or starving for some hours. Then back the horse in a stall, take his tongue in the left hand, and with the right pass the ball well back over the root of the tongue.

3. Salts, that is, Epsom salts, are seldom given to horses, as their operation is uncertain. Glauber salts seem better suited to the constitution of the horse and are given to loosen the bowels and counteract the constipating tendencies of such feed as straw. It is much to be preferred that drugs should be avoided, and the healthy condition of the bowels maintained by a proper variety in the ration. For this purpose oil cake is excellent as a laxative and nutritious food, and may be fed in any convenient quantity until the bowels are sufficiently relaxed. In the summer, or for horses working hard, oil cake is unsuitable, being too laxative and heating, but in winter, and for idle horses, these qualities make it an admirable addition to the ration.

Mare Stiff in Front, Etc.

R. D.* Carnduff, Assa.: "I have a mare, 10 years old, got stiff in front three years ago, and would occasionally stumble. Her hoof got dry and brittle and seemed narrow at top of hoof, with creases on each side; sometimes cracks at bottom of the hoof. I had her shod, but with little apparent improvement. When working is a little stiffer in the morning, but is not so bad in summer. She is in good condition and a good worker. 2. A mare, nine years old, is very tight in the hide and thin, though in good spirits and with fine sleek coat. I am feeding her three-quarters of a gallon of oats a day and oat straw morning and night, wheat straw at noon. When eating the straw I can hear a kind of gargle in her mouth. She drinks very slowly and does just enough work for exercise. I filed her teeth some time ago, but she is not much better. 3. Cow has had a cough for over a year. Coughs sometimes when rising up, and always after drinking. Is also short of breath when pushed. She is a hearty eater. Was quite fat last fall. Has calved since, is in good condition and milks well. Is she all right? 4. Do you think horses will fatten better on cut oat sheaves than on uncut, or work better? 5. Do you consider boiled potatoes better than raw to fatten horses? 6. A horse is doing well every way, but is tight and thin in the hide and sweats easily. Would you approve of linseed oil in his feed? 7. Are boiled oats best for horses as winter feed?"

Answer.—1. You should try to get the feet into a healthy condition. They appear to be contracted and may be the cause of the mare's stiffness. The feet should first be trimmed with knife and rasp until a proper level of the wall with the sole has been attained all around. Poultice the feet with bran and linseed meal twice a week, making a good big poultice to enclose the whole foot, and leave it on over night. Put it on hot if convenient. At other times anoint the feet daily with an ointment composed of glycerin, two parts; pine tar, two parts; tallow, four parts. Melt the tallow and stir in the other ingredients.

2. This mare may still have some trouble with her teeth which the filing has not removed, perhaps a broken tooth. In any case three-quarters of a gallon of oats a day is hardly enough grain to enable her to lay on flesh, and you might increase the quantity or add some ground oil-cake to her ration with advantage.

3. This case is suspicious of tuberculosis and you should have the cow submitted to the tuberculin test. It is quite common to find a cow fat and yet diseased.

4. Yes, but the gain hardly pays for the labor of cutting.

5. There is no advantage in boiling potatoes for horses. They should be fed raw and only a few at a time.

6. Yes, linseed oil or meal should do him good.

7. Yes, of great advantage in keeping horses in good condition, but for boiling, barley is to be preferred to oats.



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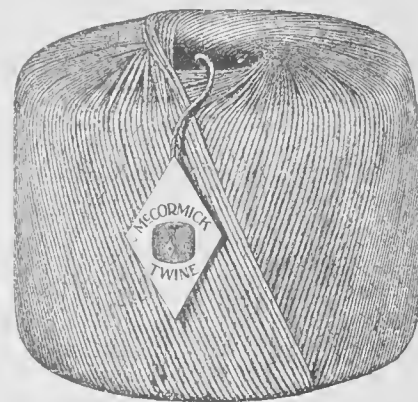
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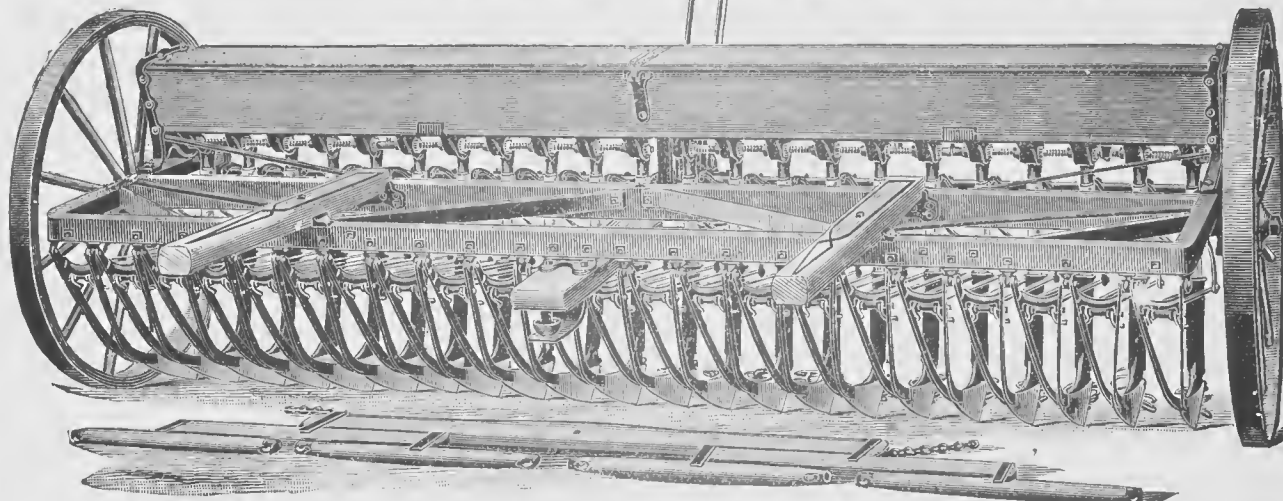
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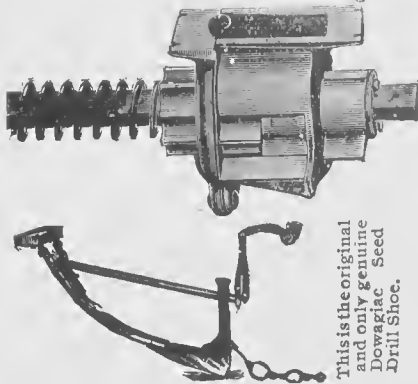


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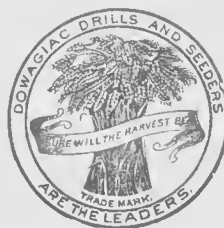


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While our columns are always open for the discussion of any relevant subject, we do not necessarily endorse the opinions of all contributors. Correspondents will kindly write on one side of the sheet only and in every case give their names—not necessarily for publication, but as a guarantee of good faith. All correspondence will be subject to revision.

Speltz on Light Soils.

R. J. Stewart, Holland, Man.: "I have noticed a good deal of enquiry in your paper of late in regard to speltz. Last season I tried three acres of this grain, and am very well pleased with the results. I sowed it on a very light piece of land—clear sand, in fact—and had alongside a patch of oats and spring rye. The latter grains were almost a complete failure, but from the speltz I secured at least 40 bushels per acre. I have tried feeding it to horses, mixed with oats, and the animals seem to do very well. I think it would make excellent chop for cattle. One of the principal advantages in connection with speltz is the way in which it thrives on poor soils. Next summer I intend to try ten acres on a little better land."

A Sod Floor over Cattle.

In answer to E. E. C., Fort Pelly, J. D. Caswell, Rosthern, writes that he has just such a floor over his cattle and it answers well as far as the hay is concerned. The sod should be cut even and laid on close, rough parts pared off afterwards and the joints filled in at the finish.

Gristing Charges Again.

T. R., Grenfell, Assa.: "About a month ago I left ten bushels (600 lbs.) of good wheat at a mill as a grist. I paid them 15 cents per bushel, or \$1.50 for grinding the wheat, and when I came to get my grist they gave me 364 lbs. flour, 100 lbs. bran, and 50 lbs. shorts, making in all 514 lbs. Now, this is 86 lbs. short, besides paying \$1.50 for grinding. How much flour, bran and shorts should I have got? I think when I paid for grinding 600 lbs. wheat that I should have got 600 lbs. in flour, bran and shorts. I may be wrong. What do you think?"

Answer.—We cannot answer everyone who asks such a question. On page 42 of last issue was an answer sufficiently near for ordinary purposes. This enquirer should have had about 570 lbs. of return from his 600 lbs. good wheat. It is unreasonable to expect full weight back. From poor wheat there should be less flour and more bran, but if clean, the weight should only be docked 3 lbs. per bushel.

Salting Hay.

J. E., Castle Mountain: "I saw an item in your paper about putting lime in hay. I have not seen that done, but my father used to put on salt when stacking. He would make a stack about ten feet wide by about twenty feet long, and about every third or fourth course he would put on about a bushel of salt. The hay was green and fine looking and the stock take it up clean."

Note.—Salting hay is an old practice, and is always advisable when hay is put up very green.

Believes in Brome Grass.

D. Cameron, Pipestone, Man.: "I notice what may be considered the revival of an old question, Brome versus Natural Rye Grass. I am glad at this time to read of something green. I am not going to pose as a judge or to pretend to settle this question forever. I merely give my opinion based upon the little experience I have had. I cannot see why Mr. Bedford's opinion should be challenged because he is Superintendent of the Experimental Farm, or how he can be biased by having any direct interest in either of the grasses. He has to my knowledge upheld Brome grass for this country for the last five or six years, and if any one could give an unbiased opinion surely he could. Mr. Melvor puts forth his contention that rye grass is superior in quality and yields more hay per acre. But it is a grass for general utility that is wanted here and a grass that will grow under adverse conditions on light sandy soils subject to drifting, on land that is run down and choked with weeds. I maintain that in such circumstances Brome grass will prove the better of the two, as it will extend its roots and cover the ground to the exclusion of all other growth, forming an excellent pasture and good hay even in dry seasons."

Crop on Breaking.

T. S. W., N.W.T.: "Will you please give your opinion, through the columns of your valuable paper, whether I can get any sort of a crop off prairie this summer, that I intend to break in the spring. Green feed or roots, or anything will do so long as it affords some compensation for the breaking."

Answer.—This question comes from perhaps as dry a district as can be found in Alberta. It is a very natural question for a beginner. But universal experience has shown that in districts where greater rainfall may be expected it pays better to devote the first year to getting the land in good bearing condition for one good crop than to spend more work getting two poor crops, while at the same time the land is left in a very bad shape. It takes time and varied atmospheric influences as well as good work to fit any land for profitable production. One of the first essentials is good breaking and backsetting, which may be dealt with in this very issue if room is available. If June happens to be a very wet month, with rainfall later on, a crop of oats or flax or roots may be got off some land the first year. But this kind of cropping blocks the cultivation, which alone can rot the virgin sod. That sod will turn over in dry lumps for years after; will, in fact, be a nuisance till a summer fallow helps to rot it down. Therefore, don't crop if you can avoid it. It is bad economy in the end.

How to Thaw Out a Pump.

H. Cater, Brandon, Man.: "An article appeared in your issue of January 5th under the above heading, which, if not misleading, is out of date and too slow for the twentieth century, and in cases where a pump is frozen below the platform it is simply useless. The method suggested for the iron pump might work all right in the early part of the season, when the pump would be slightly frozen, but if the pump was frozen hard it would not have much effect. As to the plan suggested for a wooden pump, viz., to soak a blanket in boiling water and put it around the pump, it would be useless. On a cold day the wet blanket would freeze before the pump head would be warm."

"We have a very good plan; it is cheap and quick, and the apparatus will last a lifetime. It is as follows: Take a 12-foot length of ordinary 3-inch gas piping and cut it into three or four equal lengths. Get each piece threaded at each end, except the piece for the bottom, which only needs to be threaded at one end. The other end should be split slightly by driving a punch into it till it begins to open. Now get couplings enough to connect all the pieces together, and one for the top. Next get an ordinary tin funnel, which holds about a pint, soldered on to the top coupling and have this coupling loose, so it can be taken off one pipe and put on any other easily. When your pump is frozen, take the length of pipe which is split at one end and put the coupling with the funnel on to the other end of the pipe, and put the pipe in the top of the pump-head. Now pour in boiling water from a tea kettle. As the hot water strikes the ice in the pump it will make a place large enough

for the pipe, which will keep dropping down into the hole made by the hot water. Keep on pouring in the boiling water till the pipe gets down its full length. Then take off the funnel and coupling and put on another length of pipe and keep on till the pipe has gone right through the ice in the pump. Always keep the piece of pipe with the split end at the bottom. In this way a pump that is frozen down 8 or 10 feet can be thawed in a short time. The apparatus is not expensive. I have used one for five years and thawed a large number of pumps."

Speltz Again.—Tanning Hides.

X., Katepwe, Assa.: "Kindly answer the following questions: 1. Give a receipt for curing beef hides to be used as robes. 2. In your market reports of January 21st issue you quote speltz at \$1.50 per bush. Please give name of firm that has it for sale at that figure. 3. Is straw from speltz of any value for feed? 4. State how many pounds to the bushel and how much to sow per acre."

Answer.—1. Would suggest you send your beef hides to Carruthers & Co., Brandon, to be tanned. 2, 3 and 4. See correspondence column (page 79) of last issue.

Fence for Horses and Calves.

Subscriber, St. Mark's, Man.: "I am thinking of fencing a quarter section for horses and calves, and want to know what you think about it, as you know calves are stupid things and will go right into a barbed wire fence. Is the 5-strand fence wire made by the Manitoba Anchor Wire Fence Co., of Winnipeg, as strong as four strands of barbed wire? Or would it be better to use the Anchor fence, 3 or 4 strands, with a barbed wire on top, as horses would not then rub so readily against it?"

Answer.—Horses and calves are a bad combination, especially if the horses are colts and delight in chasing the calves. The calves will do much better if you can give them a place to themselves. The 5-strand Anchor fence will be much stronger than any five strands of barbed wire, and with such a fence there will be no need of any barbed wires. A top strand of barbed wire can be substituted if you want it, but the writer would prefer to do without the barbed wire.

Volunteer Wheat Crop.

Subscriber, Whitewood, Assiniboia: "Could you or any of your readers tell me if fall wheat will do in Manitoba or the N. W. T.? Last harvest a hail storm threshed out four or five bushels an acre for me. This started a good crop of fall wheat that was well advanced in the fall, but the cattle ate it down before the snow came. Will it grow again in the spring, or will it be safer to plow it up and sow again?"

Answer.—The wheat you refer to is not, properly speaking, "fall wheat." The true fall wheat is wheat that has proven specially adapted to stand over winter when sown in August and September. It is very unlikely that much of the wheat that has reached such an advanced stage as yours will live on into summer. If it does live it will be quite right to let it grow on. Will the writer report to us in the end of May how it has turned out? "Volunteer" crops are from seed shed on the ground in the fall, but germinating in the spring. There is no doubt that they will live.

How Much Seed to Sow.

John S. Thomson, Waskada: "I read to-day in The Farmer something more on the subject of the amount of seed wheat per acre. Regarding the amount of seed grain one man speaks of, they are nothing wonderful. I have read of such things before. I have known people in Ontario to put in a peck to an acre, cultivate and hoe it like corn, and almost double what this writ-

er says. One bushel per acre is quite a common thing for some people to sow. About six years ago, when wheat was going about 10 to 12 bushels per acre, Robt. Edmiston, west of Napinka, sowed one bushel per acre. It gave a yield of 26 bushels. His neighbors' crops, as I understood, only went 12 bushels. I understood that most of the time he just sowed one bushel. His land is a sandy loam near water, which will do with less seed; that is a sure kind of land. Mr. Bedford's experience is that 1½ bushels produces the largest crops for years. My experience has been with from 1½ to 1½ bushels for stubble and fallow, 2 bushels for backsetting. In fact, summer fallow would stand about 2 bushels, as it generally grows too much to straw. I can generally get from 3 to 5 bushels more per acre than most of my neighbors. I have had 72 bushels of barley per acre from a little less than one bushel of seed. One bushel of Duckbill is quite sufficient per acre with me. I sowed about 1½ bushels of Odessa barley per acre, but it was too thick, more especially in a dry season. I would rather sow a bushel to the acre in a dry season than 1½ bushels, as I will get more per acre from the thin sowing. It is hard to account for these things. They differ much owing to circumstances and season."

Good Wages.

A Hired Man, Wood Bay, Man.: "In your last issue you gave a report of a meeting of the Neepawa agricultural society, at which Mr. Irwin spoke on the hired labor question. He says that a man can keep 25 head of cattle on 160 acres of land and that six head will pay the wages of a hired man for one year. In this neighborhood \$130 is considered good wages, \$140 big wages. Now, I, for one, would like to know in what part of Manitoba wages equivalent to the value of six head of fairly good cattle can be got. Perhaps Mr. Irwin or some reader of your valuable paper could say."

Disc Drills.

J. Graham, Qu'Appelle Valley, Assa.: "I noticed that the two correspondents who answered the query about the disc drill only gave the relative merits of disc and shoe drills. They forgot the hoe drill. I think that it is pretty nearly acknowledged in the Qu'Appelle Valley that the shoe drill is the worst of the three. In fact, it does not work well in any ground, except spring and fall plowing. On summer fallow, if there are any roots of rose bushes, they are sure to gather under the shoes, raise them out of the ground and make them sow on the surface. On stubble it is still worse; the shoes ride on the top of the stubble. And on breaking, if there is a bit of sod left the size of a silver dollar it is sure to get under a shoe, the result being the seed is left on the top of the land. Worst of all, the chains on the shoes make a nice smooth surface to be blown away by the first high wind. The hoe drill, in my opinion, is far superior to the shoe drill, but it has its

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faults. It drags very badly on stubble and on breaking, too, if the land is not very fine. On spring and fall plowing it does poor work. As I intend to get another drill next spring, I am hoping that some of your numerous correspondents will give their experience with disc vs. hoe drill. I have been told that where the ground is at all hard the disc will not go down far enough, that the springs are too weak, that it clogs badly on heavy land, and that the scrapers on the disc are no good when the ground is damp. As it is nearly double the price of other drills, would it pay me to give the difference?

"I would like to make the suggestion that you should give us something about wheat growing in every issue. I notice that you devote several pages to stock in every issue and very little to wheat growing. Of course, we get good articles sometimes, but not as often as we should like. Everyone knows how hard it is to get a dollar this year, simply because our crops failed. I know with us in the Qu'Appelle Valley that some men had 20 bushels to the acre on summer fallow and their neighbors did not cut their fallow crop at all, and let me add that those whom I am thinking about who did not cut their fallow do not take The Farmer. There is no use of telling us to go more into cattle, as long as we get a fair crop we are not likely to keep many cattle. We may have a failure in our crops once in a while, but still that will not hinder us from putting in more wheat if we can. Why, Mr. Editor, if you come to the Qu'Appelle Valley I will show you an object lesson. Those that stuck to wheat growing alone are living in beautiful houses and buying more land; those that are using two baskets to gather eggs are most of them trying to gather enough to pay for the implements they got ten years ago. They are running after their cows to milk at 11 and 12 o'clock at night, and chasing them at 10 o'clock in the morning when they should be in the field. They are running about for hay for their stock when their summer fallow is growing a fine crop of weeds, and if they keep a hired man to look after them, they don't make enough out of the cattle to pay him. We may be compelled to keep cattle yet, but I think that I am voicing the sentiments of a good many when I say that we are not going to keep more cattle than a cow or two, to give us milk, as long as we can. So, Mr. Editor, you may as well tell us all you can about growing wheat."

Editorial Note.—We are grateful to Mr. Graham for his notes on the relative merits of drills and the reasons he gives for his opinions. When farmers must buy expensive machinery, it is highly important they get that which is the most suitable for the conditions with which they have individually to deal. We will gladly find room for further notes on this point.

We note with pleasure the information that the men who have read The Farmer and tried to work on the methods propounded by us, were so far ahead, even in the very untoward season with which the century closed. The reason is quite plain. This paper is not the organ of mere theorists. We make it our business to collect the cream of the experience of practical men in every department of farming, and confidently believe that the files of our paper contain more abundant, and more reliable information on western farming, drawn direct from front rank practical men, than any other farming paper that can be named. On the line of wheat growing The Farmer has always taken a front rank place, and if we were to write more on the same subject it would be very much repetition of points and principles we have already laid down. But we shall for a few issues try to freshen up in the minds of our wheat growing readers the principles that underlie successful wheat growing.

There can be no doubt that in the Qu'Appelle Valley, and at a good many other points, wheat in an average of years will bring in money more readily than most other lines of farming enterprise. But it is equally true that the

readily available food for wheat, as found in the virgin soil of the favored districts, will in time get so much exhausted as to require some variation from the earlier schemes of farming that have up till now appeared most profitable. If we are to get good crops now by destroying to a considerable extent the future productiveness of the soil, that depreciation should be charged up against the revenue derived from the sale of wheat. Just when, or in what way, rotation of green crops, combined with stock farming, shall be introduced on a wheat farm must depend on the individual conditions. That is must be done some day, if we are to get paying crops, even of wheat itself, all experience proves.

Running about a few hours, night and morning, in search of cows to be milked, and hunting for hay to feed them, is the kind of management peculiar to men who have stayed so long with wheat farming that they are helpless when they try anything else, but that is not business dairying. Dairying for profit is conducted with cattle that are bred, fed and educated for dairy purposes, of which education their owners are also assumed to have got a fair share. Ontario was once a wheat grow-

ing province. Most of its prosperity now depends on mixed farming, and our turn will come to do likewise, or we will have to turn out and make room for men of that persuasion.

Tree Planting.

Subscriber, Cartwright: "1. Please advise me through the columns of your paper where there is a good place to procure seed of different kinds of shelter and fuel trees. 2. Which is the better way, to grow trees from seed, or to grow them from seedlings procured from a nursery?"

Answer.—1. The best tree for all such purposes is the ash-leaf maple, and seed enough to start can be had for the asking from Mr. Bedford, Brandon Experimental Farm. 2. It is poor economy for a man who has less than half enough of knowledge about the planting to "try" the work himself. The proper course is to write some one that is in the nursery business such as Mr. Patmore at Brandon, asking information about the lay-out and cultivation of the ground, and when that is in good order contract with him to plant it. Did you read page 58 of the January issue of The Farmer?

Conditions of Auction Sales of Pure-Bred Stock.

K. McIver, Virden: "On looking over the conditions to be imposed on associations taking advantage of government grant, I notice two clauses, which, in my opinion, if enforced, will act prejudicially. 1. 'Each animal shall be in good condition, and not defective.' Query: What constitutes good condition and not defective? I think that should be left to exposor and intending purchaser. 2 (and most important). 'Each animal shall be sold to the highest bidder, if one or more bids are made.' This condition is unbusinesslike. Few men would be inclined to face that music. Let every exposor have the option of placing a reserve price on his stock to guard against slaughtering. No reasonable seller will go to the expense of sending his stock there and taking them home again if he is offered anything like a fair price. On the same principle the purchaser will not go to the sale without being prepared to pay at least as much as if buying privately."

"In the North of Scotland public sales of pure bred stock have been common for the last 25 or 30 years. Take the town of Inverness, for example.

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MONEY AWARDS FOR THE CLOSEST FIGURES OF THE INCREASE OF POPULATION.

With a view to the encouragement of patriotic interest in the results of the forthcoming Dominion Census, which is to mark the first year of the new century, the Manitoba Free Press offers educational prizes, believing that study of the growth and progress of Canada—and more especially of Western Canada—during the closing decade of the Nineteenth Century will be stimulated by the offer of money awards of the closest guesses or estimates of the population figures of Canada as shown by the official census of 1901, which will be on April 1st. The following are the prizes offered:—

Population of Canada	-	\$100	Population of Brandon	-	\$25
Population of Manitoba	-	50	Population of Calgary	-	25
Population of N.W.T.	-	50	Population of P. la Portage	-	25
Population of Winnipeg	-	25	Seven Prizes	-	\$300

OUR OFFER

All subscribers who have sent in their subscriptions to the Weekly Free Press for 1901 and since December 1st, 1900, are entitled to a guess without further conditions. Certificates will be sent and estimates recorded upon request.

New subscribers and those renewing or extending their subscriptions to any of our editions to the extent of \$1 will be entitled to participate in the distribution upon sending in their subscription. No advance is made in the price of our paper; you get your guess absolutely free.

YOUR GUESS

When you send in your subscription you make your estimate, using the form below. Be sure and write your name, address and figures of your estimates as plainly as possible. As soon as we receive your subscription and estimate, we will register your guess and forward you a certificate containing your figures which will entitle you to any prize you draw. We keep duplicates at our office, and the prizes will be awarded and paid within thirty days after the figures have been officially determined by the Director of the Dominion Census at Ottawa.

HELPS TOWARDS MAKING YOUR ESTIMATES.

YEAR	TOTAL POPULATION OF CANADA.	INCREASE	PER CENT.	POPULATION IN 1891.	
1871.....	3,669,257			Manitoba.....	152,506
1881.....	4,324,810	655,553	17.23	N. W. T.	98,967
1891.....	4,833,239	508,429	11.29	Winnipeg.....	25,639

The population for 1901 at an increase of 12 per cent. would be 5,413,227; 25 per cent. 6,041,548.

Remember, you have seven guesses and seven chances to draw a prize.

THE MANITOBA FREE PRESS CO., Winnipeg.

MANITOBA FREE PRESS CO., Winnipeg, Man.

Enclosed find the sum of One Dollar for the Manitoba Weekly Free Press for one year, also my estimates on the population figures of Canada as per your offer.

Canada.....	Calgary.....
Manitoba.....	Portage la Prairie.....
N.W.T.....	Winnipeg.....
Brandon.....	

Name

P.O. Address

Fill in your name and address and your estimate of the population for each place.

\$1.50 Weekly Free Press & Nor'-West Farmer

FOR ONE YEAR.

All Clubbing Subscribers are entitled to make an estimate.

The first sale there was held 26 years ago under the auspices of the Northern Counties Fat Show Club. The entries numbered over 100 head. Those sales have since been carried on annually. The result is a farmer needing a young bull will scarcely go to his neighbors to buy one. He will wait for the sale, where he can have probably 200 head to choose from — from the very choicest down to the veriest culls. There is another annual sale held in Elgin, forty miles east. Another in Aberdeen, 100 miles. Another in Perth, 100 miles south of Inverness. All those sales are exceedingly popular, and mostly all the surplus pure bred stock are sold there, unless it be a few sold for export. And I firmly believe the principal reason is that no man is forced to sell, and those auctions are run by practical men on business principles."

Elder Berries—Flax Growing.

Joseph Charles, Rosebank Farm, Oak-land, Man.: "I wish to tell C. H. A., of Bowden, that I have elder bushes growing wild on my farm here; one in the garden, another in the bush. I have another that I got from the Brandon farm. They grow rank and strong. The one in the garden bore fruit last season, but the birds ate it greedily."

"To W. E. Evans I would say that I have raised flax in small lots for 28 years. It is good for horses and hens, and also as medicine. I put it in rows a foot apart and hoe and weed it. This is the only way to ensure having clean seed. It does well enough on breaking, and is clean as well, but the best and cleanest crop I got of either flax or wheat is that of the second year."

A Question of Pedigree Registrations.

Subscriber, Rossendale, Man.: "I am about buying a 6-year-old Shorthorn cow (registered). She has had two pure bred calves, but by mistake she is in calf this year to a grade bull, but a well bred Shorthorn grade. Will her future calves (after this one) be eligible to register in the Dominion Shorthorn Herd Book, if from pure bred sires?"

Answer.—Had the grade bull been her first breeding mate, we should say that it would be very wrong to permit you to register her next calf. The degrading effect will be much reduced in this particular case, but may still have some influence, and now, when properly pedigreed stock are so abundant, it is not at all desirable that such stock be admitted to registration. But, aside from this, we know of no rule that will prevent you registering the calf when both sire and dam are registered.

Pasture Grasses.

C. Shillingford, Fleming, Assa.: "I want to enlarge my pasture field this summer by taking in ten acres additional. Which grass is the best to sow, and how much per acre? Can cattle be allowed on it this summer?"

Answer.—Sow 3 lbs. timothy and 6 lbs. Brome grass to the acre. It will do no harm to put in half a bushel of barley to the acre. If cattle are allowed on it in summer they will do harm. They may be allowed on it in the fall, but not to eat it close down, which will be injurious to the Brome grass. If the land is low lying, a little red top would do more good than harm. Should weeds come, as is most likely, the mower should be run over it to prevent seeding. Sometimes the grass alone will be better than if mixed with barley. Timothy is only a bunch grass, and may not last long, but with fair encouragement, such as spreading manure thinly over it in winter, the Brome will spread freely. For seed firms see our advertising columns. All those firms are reliable.

FOR SALE
BROME GRASS SEED
Choice quality—Price reasonable
Alex. S. Blackwood, Grlerson, P.O., Alta.



An assemblage of bright young men and women, gathered from many parts of our Dominion and united in the pursuit of practical knowledge under the direction of twelve experienced and capable teachers, may be seen any day by visiting the Central Business College, Toronto. Modernity is really the mistress of this splendid school, and when supported by thoroughness and careful attention to every detail which can be worked out for the benefit of the student, it is not surprising that the up-to-date business man selects this school for his son or daughter. A correspondence department has been added during the past year which opens the door for many young people to acquire a very good knowledge of business subjects who find it impossible to attend a school of this kind. See advt. in this issue.

The International Illustrated Stock Book is the name of an excellent volume issued by the International Food Co., of Minneapolis, Minn. Besides the numerous fine engravings, costing \$3,000, of well known animals of almost every breed of live stock, the book contains a fund of information about each breed and other matter of interest to every stockowner. For particulars as to how you can get this book free, see the advertisement of the International Food Co. in this issue.

The show room of the McCormick Harvesting Machine Co., 102 Princess St., Winnipeg, was crowded with visitors during bonspiel week. They exhibited samples of their celebrated binders, mowers, rakes and sickle grinders showing improvements for 1901. They also had a very attractive exhibit of twine, the product of their new twine mill. W. A. Cavanaugh, manager, says they still have a few hundred large calendars and "Pride of the New Century" books, which will be mailed free upon application. Mr. Cavanaugh reports business good and has unbounded faith in Manitoba's future.

Raising the Angora Goat and Mohair for Profit.—This is the title of a new work, covering 523 (6x8½) pages, well illustrated, by Wm. L. Black, Fort McKavett, Texas. The writer has had a long experience in handling Angora goats and gives in his book a history of the Angoras, how they originated and how they were introduced into the United States. The writer deals with the best methods of raising and breeding the goats, their value in clearing brushy land and general care and management. The commercial side of the question is also touched upon, as well as the manufacturing of mohair. The book is bound in a substantial way and sells for \$3.00.

The Warder, Bushnell & Glessner Co., of Springfield, Ohio, and Chicago, manufacturers of the celebrated Champion Harvesting Machines, have a very attractive exhibit at their transfer house. The exhibit is in charge of their Manitoba general agent, R. H. Potter, who has been very busy during bonspiel week with visiting dealers from all parts of the province and the Territories. Mr. L. C. Peterson, from their Chicago office, is also attending the bonspiel and meeting a large number of their agents and getting acquainted with the trade in general. The success of the Champion machines in the recent harvests in Manitoba and the Territories is awakening a great deal of interest among dealers.

D. B. Macleod, general agent of the J. I. Case Threshing Machine Co. for Canada, has just returned from the

A Model Farm Dwelling

BUILT ENTIRELY WITH

Thorold Cement.



House of Geo. Agar, Rounthwaite, Man. Dimensions of main part 20 x 26 feet. Kitchen 20 x 20 feet, all 23 feet high from bottom of cellar to plate. First addition 15 ft. 2 in. x 9 ft. 7 in.; second 16 ft. 9 in. x 15 ft. 8 in. Both 11 feet high. Verandah foundation 46 ft. long and 1 ft. 6 in. high.

ESTATE OF JOHN BATTLE, Rounthwaite, Man., July, 23, 1900.
Manufacturers of Thorold Cement,
THOROLD, ONT.

Dear Sirs: Have built a large house, the size of the main part being 20 x 26 feet, and also a kitchen 20 x 20, all being 23 feet high from bottom of cellar to the plate. I did the work last year, and this year I built two additions, the size of one being 15 ft. 2 in. x 9 ft. 7 in., the other being 16 ft. 9 in. x 15 ft. 6 in., both 11 feet high; also a verandah foundation 46 feet long and 1 ft. 6 in. high. I used in the construction of all the walls 160 barrels of your Thorold Cement, manufactured at Thorold, Ont., and would say that it is giving perfect satisfaction, and if I should ever build again I would use the same material, as it is better and cheaper than either stone or brick.

GEORGE AGAR,
Rounthwaite P.O., Man.

Correspondence Solicited.

FOR FREE PAMPHLET WITH FULL PARTICULARS, ADDRESS—

ESTATE OF **JOHN BATTLE** THOROLD, ONT.

OF INTEREST TO HOUSE-KEEPERS.

Nice clean walls are to a room what a new and neat-fitting suit of clothes is to a lady or gentleman. House furnishings may be ever so beautiful and costly, but if your walls are dark and dingy, the room has a gloomy aspect. Walls coated with CHURCH'S

ALABASTINE

Made in twenty beautiful tints and white, ready for use by mixing in cold water, have the effect to make a room cheerful. Work may be done in plain tints, or elaborate decorating, as is desired.

ALABASTINE is made from a cement base that goes through a process of setting on the walls, hardens with age, and admits of the application of any number of coats, one over the other.

Kalsomines are temporary, and wall-paper with its mouldy paste and poisonous coloring matter, IS UNSANITARY.

ALABASTINE is for sale by dealers generally; therefore is handy to get. ANYONE CAN BRUSH IT ON—NO ONE CAN BRUSH IT OFF.

ALABASTINE is sanitary, durable and cheap.

Would you like to know more about Alabastine? If so, write us, mentioning this paper, and get a 45-page book on wall decorating, free. Address—

THE ALABASTINE CO. LT'D., PARIS, ONT.

company's head office at Racine, Wis., and reports their immense plant as in a state of great activity. It is the company's intention to discount all previous outputs, and in order to realize on their expectations, they are introducing several new features in their machines which will make both thresh-

er and engine, if possible, more desirable. For the benefit of the threshermen they have made a reduction in prices all round. We have received a copy of their 1901 catalogue, which is very neatly gotten up and artistic in every detail, besides containing a fund of information for threshermen.

The Nor-West Farmer

ISSUED TWICE A MONTH.

Established 1882.

The only Agricultural Paper printed in Canada between Lake Superior and the Pacific Coast. Issued on the 5th and 20th of each month.

THE STOVEL COMPANY.

Proprietors,

COR. McDERMOT AVE. & ARTHUR STREET,
Winnipeg, Man.

Subscription to Canada or the U.S., \$1 a year, in advance. To Great Britain, \$1.50.

ADVERTISING RATES.

Transient advertisements, for less than three months, 15c. a line (each insertion). Terms for longer periods on application.

All advertisements estimated on the Non-parallel line—12 lines to an inch. A column contains 150 lines.

Copy for changes in advertisements should be sent in not later than the 27th and 14th of the month to ensure classified location in the next issue. Copy for new advertisements should reach the office by the 30th and 17th of each month.

TO OUR SUBSCRIBERS.

It is the intention of the publishers of this paper to admit into their columns none but reliable advertisers, and we believe that all the advertisements in this paper are from such parties. If subscribers find any of them to be otherwise, we will esteem it a favor if they will advise us, and we will at any time give our personal attention to any complaints which we receive. Always mention this paper when answering advertisements, as advertisers often advertise different things in several papers.

LETTERS

Either on business or editorial matters, should be addressed simply "The Nor-West Farmer, P.O. Box 1310, Winnipeg," and not to any individual.

LOOK AT YOUR SUBSCRIPTION LABEL.

When you pay your subscription, watch the name label on the next two issues which you receive. On the first issue following payment, it might not give the correct date—the type-setting machine may make an error and the proof not be corrected before mailing day. But if the date is not correct on the SECOND issue, please notify us by postal card.

Look at the date label now. Are you in arrears? Are you "paid up" to the end of 1901? The label will tell you. If in arrears, please renew promptly.

Subscribers who miss any of the issues of "The Nor-West Farmer" should drop us a card at once and secure same, as we want every subscriber to get every copy. Do not delay in sending, as our supply of extras sometimes becomes quickly exhausted.

WINNIPEG, FEB. 20, 1901.



OUR ROYAL PREMIUM PICTURES.

We are pleased to announce to our readers that we are preparing to send out in our March 5th issue the first two of the four premium pictures which we have advertised to send during the year to each paid-in-advance subscriber.

These pictures will be nicely finished portraits of King Edward VII. and the late Queen Victoria.

It should be remembered that they will be sent to all those subscribers who are paid in advance, and we would urge any who have not yet renewed for this year to do so at once, as we cannot promise to supply them to those whose renewals reach us after March 5th issue has been sent out.

Will you be one who will receive our Royal Premium Pictures?

—The amount placed in the Dominion estimates this year for the Mounted Police is \$850,000.

SELF GOVERNMENT IN THE TERRITORIES.

The Farmer aims to discuss in its editorial columns all grave public questions, particularly those affecting the agricultural and pastoral industries of the west. We have no political leaning one way or the other, and are, therefore, often in a position to present to our readers a view of any question agitating the public mind, which could not find expression in the partisan press, owing to political exigencies. Eastern papers have recently devoted particular attention to the subject of this article, and it is commonly believed that the Territories are on the brink of important political changes. Much sense, but more nonsense, has been written apropos of the impending elevation of the Territories to full provincial status, and The Farmer proposes to add its quota to the discussion. The question, as it affects the rancher and farmer, is of the gravest importance and it is the duty of every one of our readers, whether Territorial or Manitoban, to become fully informed upon its various phases.

The most vexed question is that of boundaries. Three feasible solutions present themselves. 1. The establishment of one province within the area now covered by Assiniboia, Saskatchewan and Alberta. 2. The establishment of two provinces—east and west—with in the said area. 3. The addition to the Province of Manitoba of all that portion of the Territories lying east of the third meridian, and the establishment of one province out of the remainder.

The first scheme is not likely to meet with favorable consideration at the hands of the House of Commons. Such a province would be unwieldy and owing to its enormous capacity for sustaining a dense population, the sapling of to-day might easily, in years to come, develop into an enormous giant overshadowing any two of the other provinces and exercising an uncomfortable influence in Dominion politics. Clearly, the Ottawa people would shy at this solution.

The second proposal, two provinces, seems more reasonable, but, alas! here again we meet difficulties. As a people, we Canadians are "very much governed." Be the government good, bad or indifferent, the fact remains, that we have lots of it and to spare. The mistake will scarcely be made to multiply government more than strictly necessary, and, incidentally, it might be mentioned, that the vote for civil government to all provinces is a specific one, which means, that it would cost the Dominion exchequer at least \$50,000 per annum extra to maintain two provinces. That money could surely be utilized to better advantage.

The third solution, adding to Manitoba and making one province, appeals to the common sense of those who possess this quality. Manitoba is somewhat heavily in debt and the added territory would be quite free from this incubus; it would, therefore, be necessary, if any such arrangement be made, that the latter should be given special financial advantages over the former. No serious difficulties would be experienced in dealing with this phase of the problem in an equitable manner. The celebrated Clergy Reserves settlement in Eastern Canada apparently affords a precedent. It may, therefore, be taken for granted, that no injustice will be, or rather need be, inflicted upon the residents of the added territory, should this course be deemed prudent.

That section of the community in the Territories clamoring for full provincial status are doing so, partly on the grounds that better financial arrangements would follow and partly on the grounds that greater efficiency and economy would result, if the services, usually managed by other provinces, which are now looked after by the Federal Government in the Territories, were administered locally.

The first contention is hardly borne out by impartial investigation. It would entail too much space to go carefully into the financial position of the country, but it would appear, that if a bargain were made between the new province or provinces and the Dominion, at all adhering to the lines followed at the time of Confederation, any addition to the annual grant would not be considerable. The premier of the Territories, in a very able speech, last year, advanced a claim to the public lands of the Territories in behalf of any province which might in the future be formed. This position was apparently a thoroughly sound one. If the Dominion recognized the justice of this claim, it would, of course, result in large additional revenue to such province.

The claim that certain important services could be better administered under provincial establishment than by the Dominion, as they now are, is worthy of more careful examination. The veterinary service in the Territories is at present handled by the Dominion. The veterinarians of the Mounted Police are utilised and the Commissioner of that force is the chief local executive officer. Even the most casual observer could not fail to admit that this work, at least, is susceptible to considerable improvement. The system has been condemned in scathing terms by nearly every newspaper in the Territories, irrespective of politics. That any saving could be effected in administering this service locally, is doubtful; but there can be no question that veterinary matters could be looked after much more efficiently and satisfactorily to the public by a provincial government with direct responsibility to the people, than by a Dominion Minister, several thousand miles away, represented by the Chief Dominion Veterinarian, again represented by a police officer. This delegation of authority trends to aristocratic administration.

Another matter of a local nature now dealt with by the Dominion is that of the creameries. This service has been uniformly efficiently administered once it got fairly started. It may be taken for granted, that Government operation of creameries on the co-operative plan, has come to stay. Handing these institutions back to private enterprise would, for various reasons, be a retrograde movement and this is a progressive country, hence, the wish of the people to develop the dairy industry along the most up-to-date lines. A local dairy department could make a specialty of this work and, if it were in the hands of the right man, great efficiency should be the result.

The administration of justice would scarcely call for even passing comment in the columns of an agricultural journal, were it not for the fact, that this service appears to present enormous possibilities in the way of economising, thus rendering available, under provincial government, increased funds for the development of the agricultural and pastoral industries of the west. To begin with, we wish to direct attention to the cold fact, that it costs considerably over one-half million of dollars to police the Territories! The total cost of policing British Columbia, collecting all taxes, providing a forest ranging system and a multitude of other services is about \$70,000 per annum, or less than one-eighth of what the Northwest Mounted Police costs. The Indian population of the coast province is 25,000; that of the Territories 18,000. The former has an enormous number of extensive mining camps, the latter only one or two. It is well known that a mining population presents peculiar difficulties in maintaining law and order. When a comparison is made between Manitoba and the Territories in that respect, the result is even more startling. The Mounted Police is a most dashing and excellent force from a military point of view, a credit to Canada and to the Empire—but it comes uncommonly high. The total expenditure for education, public works and agriculture in

the Territories is only about \$300,000. The amount devoted to agriculture alone is less than \$17,000! Supposing the new province could be policed for, say \$100,000 (apparently a very liberal amount), what enormous avenues of possibilities present themselves for the expenditure annually of the remaining \$400,000, more or less, in the way of developing agriculture and providing roads and bridges badly required by the settlers now in the country. We cannot bring ourselves to believe, that the residents of the Territories are such a lawless lot, that this abnormal expenditure for maintaining order, however necessary it may have been in the "dark ages" long since past, is still defensible.

Our farmer and rancher readers will agree with us, that the whole subject of provincial establishment is one which concerns them and their business interests very closely. We do not invite discussion on the political side of the subject, but it would be interesting to learn our readers' opinions as to whether agriculture and stock raising in the Territories could better be developed under provincial status, than under the present arrangement and how. There is ample scope for reflection.

HAIL INSURANCE.

It is not at all improbable that one of the measures to be brought in by the present Government of Manitoba will be an Act to establish provincial hail insurance. It is, we think, about four years since a measure of the same kind was proposed by W. F. Sirett, then M.P.P. for Beautiful Plains, but was balked on its way through the House. Two years before, the farmers of that district would have denounced any such measure, but one destructive storm sufficed to change their views. Their conversion had been achieved by the same means that, we believe, have since prepared the bulk of the grain growing farmers of the west to welcome any reasonable scheme of mutual protection. The recommendation of the worthy member for Brandon that the Government should investigate the adaptability of artillery to check thunder, is, we fear, still in unibus and likely to stay there, but there is now only a small minority in and out of Parliament that would wish to delay the attempt to formulate a scheme of general protection from the ravages of hail storms.

The Farmer was at the time a supporter of the main principle of Mr. Sirett's bill, and there are thousands of the practical farmers of the country who have since had abundant reason to regret its failure. But what the common sense of the community could not or did not heartily accept, they have since been led to appreciate by less agreeable means. The only well intended and honestly directed mutual scheme has repeatedly been found weak just where it was needed to be strong, and the clever adventurer who engineered his fake scheme a little later has done us some real service in return for the money carried off by himself and his confederates. He and they and their more honestly disposed successors have done a good deal and are still doing something to demonstrate that any form yet known of mutual hail insurance is too costly in operation and too feeble to meet the real needs of the country.

In our last issue will be found a pretty full account of the meeting at Neepawa, at which there was apparently not one dissenting voice from the resolutions there brought forward and so ably supported. We trust that every other agricultural society in the country will take up the question and deal with it in a way worthy of its practical importance and that their united pressure on the Government will lead to the introduction of a practical measure that will be at once equitable and economical and minimise the loss to the individual sufferer by spreading it more widely than can ever be done by purely voluntary insurance.

WINNIPEG AS A SAMPLE MARKET.

In the address given by President W. Martin before the Winnipeg Grain Exchange, at its recent annual meeting, the following clause occurs:—

"The change of the headquarters of the Manitoba Inspection Division from Fort William to Winnipeg, in the second year of its existence, has proved most satisfactory to the trade, and none, I think, would wish a reversion to the old system. One further improvement in connection with this would be the making of Winnipeg an order point, or terminal division, in the handling of our wheat. This would be of great benefit to Winnipeg, as it would be the means of creating a sample market here similar to that of Minneapolis, and it is to be hoped that the Exchange will keep this in view now that the Canadian Pacific Railway Co. propose to greatly enlarge their yards here, which will enable them more easily to give this concession to the trade."

The idea suggested by Mr. Martin of making Winnipeg a sample market is of much greater importance than at first sight appears. Let us assume that, as has frequently been the case this year, a car of very fair milling wheat is shipped by the grower to Fort William. Under the present system a very small amount of sprouted grains in that lot would throw it out of grade. But if arrangements were made for holding the car a few hours in the Winnipeg yards, the shipper, no matter whether he is a farmer or a grain dealer, would have the opportunity to sell it to any of the milling firms or the agent of an eastern miller for some cents more than it could possibly bring if put through the regular inspection and sold on grade. It is not farmers alone who would be benefitted by this arrangement. The regular dealers have the very same difficulty to meet in their ordinary transactions, and in this way a considerable improvement in the value of samples not eligible to straight inspection would be the result. There are hundreds of cases every year in which dealers themselves are hard hit by the grading system, which some people think was invented mainly for their benefit. A man in charge of a country elevator is ordered to send in a car or two of say 2 hard. He cuts it a little too near and when the inspector comes along, he finds it so, and can only give a 3 hard grade, though he knows that not a great number of bushels more of 1 hard mixed in would have made it the grade desired. The financial result is that a car worth only half a cent less than straight 2 hard, must, if sold on grade, only lose 3 to 5 cents. Sold by sample it would bring its full milling value.

A LIBERAL BEQUEST.

The trustees of the H. A. Massey estate have offered the Ontario Government \$40,000 with which to build a convocation hall and library at the Ontario Agricultural College. The offer has been accepted and the new building will be called "Massey Hall and Library." This is a fitting bequest. To what better purpose could Mr. Massey's money be spent than to assist in advancing the industry which contributed so largely to his profits. We always thought a mistake was made when Mr. Massey built what is known as Massey Hall in Toronto. Had he endowed a chair for special research work in some branch of agriculture it would have been a standing monument to his memory and of lasting good to the province, if not to the whole Dominion. This bequest for a library, which by the way, was badly needed, comes as a tardy recognition of the debt he owed to agriculture. Here is a hint for some wealthy westerner to come forward and endow a chair for agriculture as a beginning towards an agricul-

tural college for Manitoba. It would make a good beginning for the opening century.

—The population of Winnipeg is estimated at 52,443.

—The amount of money Hon. Sydney Fisher asks for this year to spend on agriculture and arts is \$602,900. Last year it was \$657,500.

—Winston Churchill, who lectured in Winnipeg recently on his experiences in South Africa, says: "Winnipeg is destined to be the centre of gravity of British North America."

—The Commissioner of Immigration at Winnipeg states that the number of homesteads entered in 1900 was 7,910, as against 7,044 in 1899; 5,260 in 1898, and 2,717 in 1897.

—The latest move in the way of combines is the amalgamation of five business colleges in Ontario. The new federation is capitalized at \$100,000, with headquarters at Toronto.

—Midway shows have had a great run all over the country since the World's Fair in Chicago, but their day is about over and the general impression is that there will be fewer of them seen this year. The fewer the better.

—The immigration to Canada during 1900 is estimated by the Department of the Interior at 44,687. The vote for immigration last year was \$445,000, and the same amount is in the estimates again this year.

—The Maritime Provinces are working to establish an agricultural college that will do for the three provinces. A scheme has already been decided upon and needs only ratification by the respective legislatures.

—The total estimated expense asked for by the Dominion Government for 1901 is \$44,102,323, which is \$2,278,720 less than the amount asked for last year. We have got supplementary estimates to come towards the close of the session and they will likely bring the total amount up to that of last year.

—We desire to express our sympathy with the Hon. G. H. V. Bulyea, Minister of Agriculture for the Territories, at the death of his only child, Percy M. Bulyea. He was a remarkably bright boy of fifteen and his death at that early age is mourned by a wide circle of the friends of the bereaved parents.

—The Agent-General for New Zealand managed to get a conviction the other day against a London butcher who ticketed as "New Zealand" mutton from the River Plate. But it is no sin as yet to sell as prime Scots a steer fed in Canada. The Scotch are too slow or their detectives are not so smart as the New Zealand men.

—It has been no small amount of pleasure to us during the past few months in receiving from our thousands of readers so many kind expressions with reference to The Nor-West Farmer. This is encouraging. We also appreciate the kind warning given by one writer, when he closed his letter thus: "Beware when all men speak well of you."

—In the January 21st issue of The Farmer it was stated that the New Brunswick Government had started a training farm at which educated young men could receive a thorough training in agriculture. We have since been informed that the Government have no connection with the farm started by Mr. Pratt, at Penobsquis, King's Co., it being purely a private enterprise.

—R. P. Fraser, one of the oldest and most popular pioneers of the Minnedosa district, died there last week at the age of 73. It is now some years since he retired from his farm to live in the town of Minnedosa. He was always a hearty supporter of the agricultural society and made a competence out of his farming operations which enabled him to live in comfort in the nice home he built on the height overlooking the town.

—The Birtle municipal council has decided to increase the wolf bounty to \$2.00 a head. Their example might with advantage be followed all over the country. The board bill of a fox or wolf up till the time he happens to get shot or trapped comes much higher than the highest bounty that has ever been paid in Manitoba, and though it is not levied in hard cash, the farmer has to foot the bill every time. Better pay cash than feed chickens for wolves to feast on.

—Combines are the order of the day. The furniture manufacturers of Canada have combined to unite into one company 17 firms that have been doing business. The capital of the new company is placed at \$3,000,000. It is claimed, of course, that the amalgamation of these firms will enable the company to save money in purchasing, in the cost of distribution, in specializing, in the manufacture of particular goods and in avoiding unnecessary competition. They also wish to develop an export trade. The new company should be able to make furniture cheaper, but like all other combines, this will never be done. On the contrary, furniture will gradually become dearer, through the crowding out of all opposition.

—The publishers of this journal would indeed be ungrateful if they were not thankful for the splendid promptness with which most of our old subscribers have sent in their renewals for another year, and, better still, for the flood of new subscribers which has swept itself in upon us. It has been a matter of interest, as well as satisfaction in the past, to watch the names of post offices appear on our list with first one name (the entering of the wedge) then two or three more, then half a dozen, and finally almost all the farmers in the community become subscribers. But sometimes they come in floods. As an instance of this sort of thing we have in our mind one post office in Assiniboia, where one month ago we had only one subscriber. Now we have eighteen! There are other similar cases. For all of which we are duly thankful.

—The Birtle Eye Witness remarks:—"Ratepayers at Neepawa demand that names of parties who are still indebted for seed grain purchased about a dozen years ago, be published. Such has been asked for a number of times and hesitation to comply on part of municipal officers is taken as indicating nepotism or partiality to shield the culprits. As those who do pay taxes must foot the bill for delinquents, it is their due to know for whom they have to put it up. If a little more publicity were given those who thus shirk their responsibilities not only at Neepawa, but nearer home, there would be less roguery." The Farmer thinks that if a man is too poor to pay his municipality for the seed provided him years ago at their cost and risk, he need not be ashamed of it. But if he is too mean, and wants to shirk his financial obligations and shift them onto his neighbors' shoulders, the fact cannot be too soon or too widely known.

—Although it was a Frenchman, Tellier, who was perhaps the originator of the application of cold in the preservation of fermentable substances, yet France is only a novice in the employment of cold or low temperature in the preservation of perishable agricultural products, such as butter, milk,

Cancer Conquered.

The new Constitutional Remedy
Bringing Joy to many
Canadian Homes.

The sufferer from cancer or tumor need no longer despair. A new way of escape from this terrible disease has been opened up, which has brought joy to hundreds of hearts in Canada and in the United States. The knife, the paste and the plaster have at last been vanquished with all their torments, and now any cancer sufferer can take treatment in his own home without enduring any pain or inconvenience. The new constitutional remedy has revolutionized the treatment of cancer. Its action is through the blood on the cancer poison, which it completely destroys and cures the disease permanently. If you desire more information about this remedy, send 2 stamps to Messrs. Stott & Jury, Bowmanville, Ont., for their new book, "Cancer, Its Cause and Cure."

poultry and meats. A company is being formed now to handle poultry by establishing refrigerating depots wherever required. The poultry trade of France is a heavy one and this new move will enable holders to take better advantage of the markets. All killed poultry—ducks, fowls, geese, turkeys, etc.—can be preserved sweet and fresh for two or three weeks if placed in contact with a temperature of one or two degrees below the freezing point; they will be equally well preserved for four or five months if the temperature be kept at five to six degrees below freezing point. The most delicate dead poultry can thus be conveyed to any distance.

Fire! Fire!!

When that cry sounds how people rush to help and sympathize! And when some fireman rescues a woman



from the flames, the streets echo with applauding shouts.

And yet if that woman had perished in the flames it is possible that she would have suffered less than she suffers almost daily from the inflammation which disease has lighted in the delicate womanly organism.

That fire of inflammation can be put out. The gnawing ulcer can be cured. Dr. Pierce's Favorite Prescription not only establishes womanly regularity and dries enfeebling drains, but it heals inflammation and ulcerations and cures female weakness. It makes weak women strong and sick women well.

"I suffered for four years with what four physicians pronounced ulceration and prolapsus of the uterus," writes Mrs. Ada Brooks, of Kirbyville, Tauey Co., Missouri. "Also inflammation of bladder and urethra. My case was chronic and complicated. Had several good physicians, but kept getting worse. Had been confined to my bed five months when I wrote to you. I received your reply very soon and then dismissed my physician and began taking Dr. Pierce's medicines. I took eight bottles of his 'Favorite Prescription' and 'Golden Medical Discovery,' and began to get better at once. In two months I could sit up in a chair, and kept getting better. In four months could do all my house work, including washing and sewing."

Dr. Pierce's Common Sense Medical Adviser, paper covers, is sent free on receipt of 31 one-cent stamps to pay expense of customs and mailing only. Address Dr. R. V. Pierce, Buffalo, N. Y.

When writing advertisers, mention The Nor-West Farmer.



Difficulties in Churning.

As cows get along in lactation it often becomes somewhat difficult to churn, and this season of the year is frequently the worst period. The following letter from a troubled butter maker explains itself and the solution of the trouble, as suggested by F. Dewhirst, of the Wisconsin Dairy School, may be helpful to our readers.

"I am milking seven stripper cows, and putting my butter up in 1-lb. prints. I wrap it in parchment and sell it in our own town. I make from 10 lbs. to 15 lbs. per week. I have a new 15-gal. barrel churn and a lever worker. I find I can't churn at a lower temperature than 58-60 deg. The butter looks fine for a few days, then it streaks badly, and the salt works out of it. We heat our milk to nearly scalding, just after milking. We think we get more cream this way. We use dairy salt, rolled fine. I wash the butter twice, using about half pail water to 10 to 15 lbs. butter. Sometimes when we hold strainer under churn to strain buttermilk, I find white (un-colored) curdy specks like shot. Can you account for these, and can you tell me how to get rid of this streakiness?"

The cause of this person not being able to churn at a lower temperature than 58-60 deg. is that the milk is from stripper cows. This objection may be lessened by separating a heavier cream, say about 30 per cent. fat. More cream may be procured when milk is separated at a high temperature, but the fat content of the cream will be no greater than when milk is separated at the standard temperature of 85 deg. F. Heating the milk to a high temperature is probably the cause of the appearance of white specks in the butter. The cream ripens rapidly, becoming overripe, and the excess of lactic acid precipitates the casein, or curdy matter, of the cream. This casein does not take color and will show plainly in the butter if not eliminated. Straining the cream into the churn will help, but less ripening of the cream will be more effective.

The streakiness of the butter is due to an uneven distribution of salt. The butter needs more working. Butter should be worked till the salt is dissolved. It is difficult to tell just how much to work butter, each batch being a "law unto itself" in some respects, but it should be worked enough so that when the butter dissolves in the mouth no gritty salt is noticeable, and the salt should be tasted evenly while butter is dissolving and not an excess after dissolving. It is a good plan to allow the butter to stand for a time after salting so that the salt may be partially dissolved before working. Care should be taken that the temperature of the butter is not allowed to rise. If the temperature cannot be held down to 60 deg., or lower preferably, it will probably be better to work at once after salting, then hold for a few hours in a crock before packing, so that should any streakiness develop a little more working may be given.

Bad farming is just as bad as robbing and the best progress is made by finding out where the losses occur.

In a recent issue we gave a note of the output of the eleven creameries controlled and operated by Government for the encouragement of dairying in the Northwest Territories. The eleven, after some years of retrogression, got last year up to a total of 333,221 lbs. This comes very nearly up to the year's output of the creamery at Ypsilanti, Michigan, which from 7,138,845 lbs. milk made 337,687 lbs. butter that sold at 21½c. a pound.

High Flavor at the Expense of Keeping Quality.

M. Sondergard, maker of the champion butter at the Paris Exposition, gave at the recent Minnesota Butter-makers' Convention his views on this question as follows:—

All butter, even the very finest, is more or less apt to lose its delicate flavor, and every day it gets older it loses some of its value. The keeping quality of butter is, therefore, a very important matter to dealers, as well as consumers. It is a fact that butter with a high flavor has, for a good many years, been the leader in the American butter market.

Close study, however, proves that the demand has been moving constantly in the direction of a more mild, sweet and delicately flavored article. Whether now this movement of the demand is due or not to the fact that butter with a comparatively mild flavor proves to be a better keeper, one thing is sure, that a number of creameries, and dealers also, have already established a reputation by this grade of butter. It is very evident, providing milk is right, and all other processes are correctly carried out, that flavor in butter depends largely on the degree of acidity, when cream is churned, yet the species or kind of bacteria, the mission of which is to carry out the fermentative changes, are surely factors of no less importance than to obtain a high, or mild flavor.

The science of producing a certain desired flavor is first to develop the desired bacteria for a starter, and then to protect them against all the undesirable ones by attending strictly to cleanliness and regulating the temperature. The object is, that our bacteria take the advantage of the undesirable ones, otherwise the ripening process is a failure.

Whether it is certain bacteria, or a chemical process, that gives butter made from ripened cream its delicate aroma, one thing is known, that as soon as the lactic acid bacteria have produced a certain quality of lactic acid, the limit of their action has been reached. They do not die, but simply discontinue their action. This is the danger point in the ripening process. From now on there is nothing to keep the undesirable bacteria in check; and as some of these foreign organisms develop very rapidly, it requires but little to affect the butter, either by giving it a strong or unclean flavor.

This illustrates clearly why it is so dangerous to ripen cream above its proper degree in order to gain a high flavor. It also gives us an idea of why butter with an abnormally high flavor does in most cases turn rancid in a few days. The undesirable bacteria, having just commenced their action in the cream, continue their work of destruction in the butter. We learn not only from experience gained in our dairy schools, and a few creameries, but also from what has become customary in other countries, that by taking up the pasteurizing system we would be able to produce a much healthier, more uniform, and especially a better keeping quality of butter.

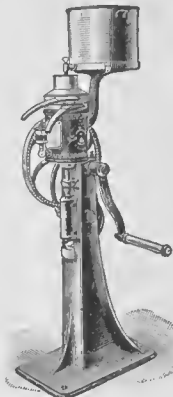
What holds us back is not a lack of knowledge of the result, nor is it because our creamery industry or our buttermakers are not up to the high level of other countries, but merely because the present demands of the American butter market do not favor the mild flavored butter made from pasteurized cream. When the Danes, some ten years ago, started to pasteurize they then met with the very same trouble in the English market. The butter was said to lack flavor, and it was difficult to get a buyer to take hold, even when the price was reduced in order to move the goods.

However, before a year had passed, the English people were willing to pay a premium on pasteurized butter, on account of its being a better keeping quality and a more uniform grade of goods all through. To establish a world reputation on our Minnesota

DE LAVAL SEPARATORS



Are as much superior to other machines as such other machines are to gravity and dilution processes.



SEE WHAT SOME OF THE USERS SAY.

April 29th, 1899.

THE DE LAVAL SEPARATOR CO.,
Winnipeg.

Gentlemen,

We have used one of the No. 2 Baby "ALPHA" De Laval Separators, and say without hesitation that it has given us *entire satisfaction for the last six years* that we have used it.

We are now skimming the milk from forty cows without difficulty, and during that time the cost for repairs has been trifling; and have great pleasure in recommending this style of Separator to any one who wishes to make dairying a success.

Yours truly,
MRS. S. LONEY,
St. Eustache.

January 28th, 1901.

THE DE LAVAL SEPARATOR CO., Winnipeg.
Gentlemen,

I am highly pleased with the Separator, and consider that it has done all that you recommended it to do. It runs easy, skims clean, and does it fast. I milked twelve cows last summer, and I consider it saved me \$12 per month.

I believe it to be the best, and highly recommend it to anyone, and feel that I cannot do without it.

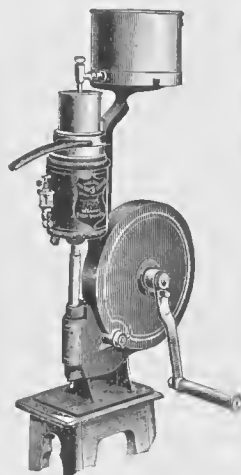
Yours truly,
J. C. BARNES,
Moose Jaw, Assa.

October 29th, 1900.

THE DE LAVAL SEPARATOR CO., Winnipeg.
Gentlemen,

When your agent Mr. Hay first proposed to me to buy one of your "ALPHA" Baby Separators, I did not think it would pay to invest, but after ten days trial, however, I convinced myself that I could not afford to be without one. I have had it about a year, and I am glad to say it has proved to be the best investment I have ever made. It will skim warm or cold milk equally well. It is easy to clean, and, in fact my opinion is no farmer milking cows can afford to be without an "ALPHA" Baby Separator.

Yours truly,
J. S. COUSTON, Starbuck, Man.



Capacity 17½ gals. per hour.
PRICE \$50
All sizes upwards at proportionate prices.

Improved UNITED STATES Cream Separator

Not an out-of-date article, but right up to 20th century standard of excellence. Strong, durable, PERFECT skimmer and LIGHT running. Unquestionably the most serviceable separator to place in a farmer's hands. Do not allow any agent to sell you a cream separator until you have perused my 116-page Special Separator Catalogue. Mailed free on application. Agents wanted in every district. Apply at once.

Consignments of good fresh Dairy Butter handled to shipper's advantage or accepted in payment of separators. Correspondence solicited.

William Scott,

(Late Manager for R. A. Lister & Co. Ltd.)
206 Pacific Avenue, Winnipeg.



FREE CAMERA

with complete outfit, given for selling only 15 gold finished Tie Pins at 10 cents each. This Camera takes a picture 2x2 inches, and is so simple to operate that any bright boy or girl by following instructions can with a little practice make good photographs. The outfit consists of 1 Camera, 1 box Dry Plates, 1 pkg. Hypo, 1 Printing Frame, 1 Developer Tray, 1 pkg. Developer, 1 set directions, 1 Toning Tray, 1 pkg. Fixing Powder, 1 pkg. Silver Paper, and 1 pkg. Ruby Paper. Our agents find these Tie Pins very easy to sell as they are set with Colored Stones of great brilliancy. Cut out this advertisement, send it to us with your name and address, and we'll send Pins. Sell them, return money, and we will forward your Camera free. Empire Novelty Co., Box 2105 Toronto.

butter, it is not enough to have a dozen excellent creameries and butter-makers in the state. Every one of us must get in line; or in other words, we must make our dairy schools the headquarters not only for students, but for all our practical workers in the creamery, and there will be no question as to our success.

A New Creamery for Red Deer.

The Red Deer Butter and Cheese Manufacturing Association, Ltd., which was incorporated last fall, and consists almost entirely of farmers, has now got its new creamery building fairly started and only awaits favorable weather to push the same on rapidly. It is hoped to have the new creamery in working order by the beginning of May. It is being built according to plans supplied by the Department of Agriculture and Dairying, and will have a capacity of about 4,000 pounds of butter per day. The new building, which will be within five minutes' walk of Red Deer railway station, will take the place of the one previously rented, and will be run by the Government as before. The output of butter from this creamery, which runs all the year round, was, for the six months ending Oct. 31st last, 63,859 pounds of butter.

A poor cow is like a poor threshing machine or a leaky wagon box.

Keeping cows clean is essential to a high-grade milk.

Milk is best separated on the farm, where the milk remains in good form for use and the cream only is carried to the creamery.

The operating of the creamery at Birtle has been let for the ensuing year to Messrs. Hough and Crowe, who are now making everything ready for a start in good time.

S. Larcombe, Birtle, gave The Farmer a call recently. He was in the city looking over the various cream separators on the market and has decided to handle the well-known De Laval machines this year.

In butter making flavor is a most important essential and in obtaining it the chief essentials are: Sweet feed, clean utensils, proper surroundings, and at least a few fresh or fairly fresh cows.

H. B. Gurler, De Kalb, Ill., the noted dairyman, says he turns his cows out to drink and lets them be the judges as to how long they wanted to be out, but that is only a safe rule if you make the stables comfortable for them.

A. P. Grout said at a recent dairy convention that the main object of stock-farming is not dollars and cents, but to maintain the fertility of the soil. Dairying he considered the highest form of stock-farming, because in selling butter only the greatest amount of fertility is retained on the farm.

The best way to build up a successful dairy herd is to raise the heifer calves from the best cows. To know which are the best cows it is necessary to test them and find out their individual merit or ability as producers of butter fat.

The Crystal City Dairy Association has held its annual meeting. More butter has been made last year and the patrons have had larger returns than in any year since the creamery was started. The following officers were elected for the coming year: President, J. E. Parr; vice-pres., T. T. Baird; directors, J. J. Ring, R. Duncan, E. Afleck, J. R. Smith and U. S. Jory.

The patrons of the Portage la Prairie creamery have addressed a petition to Premier Roblin asking that steps be taken to improve the sale of butter in the British Columbia markets. The Dominion Government is making efforts to capture this market for its N. W. T. creameries, and the petitioners feel that some steps should be taken

Sharples "Tubular" FARM Cream Separators

The Wonder of the New Century. Greatest step ever made in advanced Cream Separator construction.

Superior as the Sharples Separators have always been, these Tubular machines are far ahead and completely distance every competitor. They are worth double the money because guaranteed under usual conditions to produce enough more butter than the best competing separator to pay fully six per cent interest on the whole first cost of the machine.

We absolutely warrant it and give free trial to prove it.

Our factory is running double turn, one gang all day and one all night, for the dairyman who sees this machine buys it.

In addition to yielding more butter it is very light running. A 600 lbs per hour Tubular turns as easily as a previous 300 lbs per hour machine. No disk to bother with and get out of order, no complications. Washed in two minutes. Top of milk vat waist high.

Highest award—Gold medal and special Knights decoration at Paris Exposition. Valuable hook "Business Dairying" and catalog No 128, free.

Sharples Co., Chicago, Ills. P. M. Sharples, West Chester, Pa.



by the Manitoba Government to secure free cold storage in the west for Manitoba butter. Premier Roblin promised to give the matter due consideration.

J. A. Ruddick, Assistant Dairy Commissioner for the Dominion, gave The Farmer a call while on his way west to visit the western creameries. He had just come from the Wisconsin Dairy School, where he had given a few lectures. He was much pleased with the school, but thinks that after all a better and more practical training is given the students at the Guelph Dairy School. It is likely that Mr. Ruddick will have the general supervision of all the creameries in the west as part of his work.

The December issue of The Agricultural Engineer, London, Eng., has an excellent photo of R. A. Lister, J.P., of Dursley, well-known in Manitoba as the head of the R. A. Lister Co., manufacturers of the Alexandra and Melotte cream separators. Mr Lister has been elected first president of the National Federation of Agricultural Implement Dealers. The Engineer says: "Mr Lister has made seven trips to Canada, where his firm has two branch houses—one in the City of Winnipeg and the other in the City of Montreal, with agencies all over the Dominion. In this connection it is noteworthy as indicating the extent of the ramifications of this business to mention that Messrs. Lister & Co. have been operating two large butter factories, one at Brandon, and the other at Morris, Manitoba; while at the latter place they have gasoline and stern-wheel steamers running on the Red River for the purpose of collecting cream from the farms abutting on the river."

Every Farmer Should Have It.

We are in receipt of the fifth annual seed catalogue of A. E. McKenzie & Co., Brandon. It is a book of 48 good-sized pages, and is full of matter of much value and interest to farmers and gardeners. It is well worth preserving for purposes of reference, as the tables and information which it contains have been carefully prepared and are especially reliable on account of being adapted to the conditions of Western Canada. Every farmer should have a copy. It can be obtained for a postcard.

Owing to the quarantining of a portion of Northern Alberta, the farmers' institutes meetings advertised to be held at Edmonton, Strathcona, Fort Saskatchewan and Clover Bar have been cancelled.

THE U. S. SEPARATOR

AHEAD AS USUAL

At the Maine State Dairymen's Association Meeting at Augusta, Dec. 4-5, 1900, there were 59 entries of butter, of which

15 were by users of the Improved U. S. Separator.

Highest 98, lowest 91, average of the 15 entries 95.6

12 were by users of the Alpha-DeLaval Separator.

Highest 96½, lowest 85, average of the 12 entries 91.6

NOTE THE FOLLOWING FACTS

The users of the U. S. Separator averaged FOUR POINTS higher than the DeLaval.

The Highest, 2d Highest and 3d Highest scores went to users of the U. S.

Six, nearly one half, of the U. S. entries scored higher than the highest DeLaval.

The U. S. stood FIRST in all the different classes and special premium offers.

At the New York State Dairymen's Association Meeting at Watertown, Dec. 11-13, 1900, there were 65 entries of butter, and that scoring the HIGHEST (98½) was made by B. C. Rockwell, Spring Water Creamery, West Bangor, N. Y., and was the product of the

Improved United States Separator.

Intending purchasers should remember that if they wish to obtain the best results they must, of necessity, buy the Improved United States Cream Separator.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

193 No duty on Improved U. S. Separators shipped into Canada.

For full information of the United States Cream Separator apply to WM. SCOTT, 206 Pacific Avenue, Winnipeg, Sole Agent for Western Canada, who is now selling no other Cream Separator.

MAXWELL'S 'FAVORITE' CHURN



Sold by all leading dealers.
IMPROVED FOR 1901.

No.	Holds.	Churns.
0	6 gals.	½ to 3 gals.
1	10 gals.	1 to 5 gals.
2	15 gals.	2 to 7 gals.
3	20 gals.	3 to 9 gals.
4	26 gals.	4 to 12 gals.
5	30 gals.	6 to 14 gals.
6	40 gals.	8 to 20 gals.

PATENT FOOT AND LEVER DRIVE.
PATENTED STEEL ROLLER BEARINGS.
IMPROVED STEEL FRAME.

Superior in Workmanship & Finish.

DAVID MAXWELL & SONS,
St. Mary's, Ontario, Can.

WANTED RELIABLE MEN

in every locality throughout Canada to introduce our goods, tacking up show cards on trees, fences, along roads, and all conspicuous places, also distributing small advertising matter. Commission or salary \$80.00 per month and expenses not to exceed \$2.50 per day. Steady employment to good, honest reliable men. No experience needed. Write for full particulars.

THE EMPIRE MEDICINE CO., LONDON, ONT

For Bigger Crops.

We have two good new crop seeds. They will grow larger crops than ordinary stock. They have been tested in our testing grounds. We recommend you to try them.

"NEW ARTHUR" PEAS — White, medium size; strong, upright growth; has yielded 46 bushels 50 lbs. per acre; per bushel \$1.20. Further information in catalogue.

"EARLY HERO" POTATO — Larger and whiter than "Early Rose." Cooks dry and floury, extra early grower. 4 lbs. by mail, 75 cents. Further information in catalogue. Also other good potatoes.

Send to us for these. Or ask us for the name of the nearest local dealer carrying them. They will give the best, biggest crops that can be obtained. As the largest seed house in Canada, we can offer the very best seed stock. We only sell the very freshest stock. Get our Catalogue.

The Steele-Briggs Seed Co., Ltd.
Toronto.

PARSONS & ARUNDELL

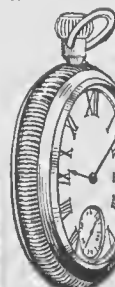
COMMISSION MERCHANTS

Butter, Eggs, Poultry and Potatoes

We can at all times place your consignment at top prices, with prompt returns.

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ful photographs of Her Majesty Queen Victoria at 10c. each. These photos are full cabinet size and are in the very finest style of photographic art. Every person would like to have a good portrait of Her Majesty. This makes our photographs easy to sell. Write and we will send you a full set of 12 photos, and we will send you a beautiful nickel watch, with ornament, d'age, hour, minute and second hands and genuine American lever movement. It is accurate and reliable and with care will last ten years. Write today. The Home Art Co., Box Toronto.



Success in Hatching Chickens in 1901.

By Mrs. Jos. Yuill, Carleton Place, Ont.

On the 15th April I received an incubator, capacity 120 eggs. I raised the temperature to 102 deg., filled it with eggs, our own being large, it only held 112. The temperature went down to 90 deg., by the third day it was up to 102½ deg., where we kept it as near as possible until the eggs commenced to pip, then we raised it gradually to 105 deg. All the chickens that came out on the twentieth day were strong and vigorous, those that had to be helped out on the twenty-first day did not appear to be so strong, and I supposed were from eggs laid by hens which had laid all winter.

I then prepared the brooder, had the temperature 90 deg., covered the bottom half-inch deep with sand, put in the chickens and allowed them to remain for twelve hours without food. I then steeped some bread in fresh milk, pressed the milk out, crumbled the bread down, and fed this very sparingly for the first few days, sometimes mixing a little pin-headed oatmeal with it. On the third day I gave half-ounce fresh-ground meat to every forty chickens, and seeing they were so fond of it, I fed them meat every day, increasing the quantity until they were big enough to look for earthworms.

When they were about three weeks old I set the brooder where a pile of wood had stood the previous year, and every morning dug up a small piece of earth to allow them to pick a breakfast of earthworms. When they were two weeks old I mixed one part oatmeal, one part shorts and two parts cornmeal with a pinch of salt, scalded it with boiling water and let it stand to cool. I then crumbled it fine to feed. I had some mangels which had kept very well. I put a few of these through the meat-grinder every day and fed them. By the time the chickens were six weeks old I fed cracked corn for supper, for breakfast one part barley to three parts oats. After they were eight weeks old I fed them all the oats they would eat at night, and that is all the food they got except what they found.

This being my first experience with an incubator, I set three hens, so that should the incubator fail, I would have them. The incubator hatched the eggs in one day less than the hens. The chickens were all fed the same kind of food and by the time they were two weeks old we could notice that the incubator ones were growing faster than the hens' chickens, the reason being, I think, the regularity of the heat in the brooder.

On the 10th August we shipped twenty-eight chickens to Toronto. In selecting them we found that the incubator chickens weighed about 1 lb., 2 ozs. each more than the hens' chickens. The following is the letter received from the produce firm we sent to in Toronto:—

"It gives us great pleasure to report on your shipment of spring chickens on August 11th. Though so long ago, and we have had many thousands since, still we can remember your crateful, for we had expected something good, but the chickens were well above our best hopes. There were twenty-eight well Barred Plymouth Rocks, every one well fed and in good condition. They weighed 101 lbs., which at that season of the year was a very good weight, some of them going five pounds each. We might say that these are the ideal birds and the ones we want for export; and, moreover, the only kind it pays to raise and sell, for as you know, we paid you 11c. per lb. live weight, or about eighty cents per pair."

We hatched another incubator full in May and were still more successful, having out of one hundred and twelve eggs ninety-six live chicks. In June we hatched another, out of one hundred and twelve eggs we had one hundred and two chicks. The June incubatorful, which hatched so well, were eggs from hens that did not lay all winter, only beginning in the month of April.

We have had good demand for our surplus stock for breeding purposes, and all that were not desirable birds for breeding we fattened and sent them to Montreal. We dressed them the same as the ones we sent to the British market last year.

The pullets which were hatched on the twenty-sixth of April commenced to lay in October. The eggs we cannot sell for hatching are sent to Montreal. The cost of coal oil used in the incubator and brooder last year was nine gallons, and it cost 22c. per gallon. This year I started my incubator on Jan. 12th and will be pleased to let you know the results later.

Change of Climate

Not Necessary In Order to Cure Catarrh.

The popular idea that the only cure for chronic catarrh is a change of climate, is a mistake, because catarrh is found in all climates in all sections of the country; and even if a change of climate should benefit for a time, the catarrh will certainly return.

Catarrh may be readily cured in any climate, but the only way to do it is to destroy or remove from the system the catarrhal germs which cause all the mischief.

The treatment by inhalers, sprays, powders and washes has been proven almost useless in making a permanent cure, as they do not reach the seat of disease, which is in the blood, and can be reached only by an internal remedy which acts through the stomach upon the blood and system generally.

A new discovery which is meeting with remarkable success in curing catarrh of the head, throat and bronchial tubes and also catarrh of the stomach, is sold by druggists under the name of Stuart's Catarrhal Tablets.

These tablets, which are pleasant and harmless to take, owe their efficiency to the active medicinal principles of Blood Root, Red Gum and a new specific called Guaiacol, which together with valuable antiseptics, are combined in convenient, palatable tablet form, and as valuable for children as for adults.

Mr. A. R. Fernbank, of Columbus, Ohio, says: I suffered so many winters from Catarrh that I took it as a matter of course, and that nothing would cure it except a change of climate, which my business affairs would not permit me to take.

My nostrils were almost always clogged up, and I had to breathe through the mouth, causing an inflamed, irritated throat. The thought of eating breakfast often nauseated me and the catarrh gradually getting into my stomach took away my appetite and digestion.

My druggist advised me to try a fifty cent box of Stuart's Catarrh Tablets, because he said he had so many customers who had been cured of Catarrh by the use of these tablets, that he felt he could honestly recommend them. I took his advice and used several boxes with results that surprised and delighted me.

I always keep a box of Stuart's Catarrh Tablets in the house and the whole family use them freely on the first appearance of a cough or cold in the head.

With our children we think there is nothing so safe and reliable as Stuart's Catarrh Tablets to ward off croup and colds, and with older people I have known of cases where the hearing had been seriously impaired by chronic catarrh cured entirely by this new remedy.

Mating Fowls for Best Results.

By W. Rutherford before the Winnipeg Poultry Association.

I do not intend to include all breeds, as that field would be too large, nor do I intend to touch on turkeys or water fowl. I will leave that for someone who is better able to do so. I will only take two subjects, parti-colored and solid colored birds. Now, the first will be parti-colored, and I will take as an example (and if you try to breed them you will find it a good hard one, too) the barred Plymouth Rock of to-day. The question of barring on Barred Rocks seems to admit of a great deal of difference of opinion. We see all kinds of Barred Rocks in our yards, but the standard states quite clearly what they should be. A correct feather commences with a blue-black tip, and continues with straight bars the full length, both light and dark bars being of equal width. When on the bird the feathers should show as close barring as possible and still be quite clear and distinct. It is much easier to breed birds with wide bars; the most pleasing color of a Barred Rock is that bluish cast, and it is impossible to obtain that if your parent stock is too dark; or if too light the young will be grey. When I say grey, I mean that the blue black tan runs into the white.

Now to mate to produce birds of that high standard is a study. If your hens

BARRED P. ROCKS (6 Pens) LIGHT BRAHMAS (2 Pens)

Best strains in America. Eggs \$2 per setting; Stock for sale. Incubators supplied.
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Of course you remember their unparalleled sweep at Brandon's Big Fair. They are just as good now, winning 1st and 2nd on cocks; 1st and 2nd on breeding pens; 2nd hen; 4th pullet; and specials for breeding pen and best display at the Manitoba Poultry Exhibition. Also prize-winning B. Minorcas, B. Hamburgs, S. C. B. Leghorns and S. L. Wyandottes. Choice breeding stock for sale. Eggs \$2.00 per 13. We want a share of your patronage and will use your right.

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J. F. C. MENLOVE, Virden, Man.

"There are Giants in these days."

BIG LIGHT BRAHMAS.

Winners at Manitoba Midwinter Show, 1901: Drewry Cup, value \$100, and Gold Medal for best 3 males and 3 females of any variety; Special for best pullet in Show; Special for best pair of Brahmas 1st and 2nd on breeding pens; 1st and 2nd Cockerel, making almost a clean sweep. A few hens for sale.

Eggs—Pen No. 1 - - \$3.00 per setting.
Pen No. 2 - - \$2.00 per setting.
All from prize-winners.

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W. F. CROSBIE, MANITOU, MAN.

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LOUISE BRIDGE POULTRY YARDS.

Secures another sweeping victory at Manitoba Poultry Show, Jan., 1901, winning 40 prizes on 40 entries. Embracing 23 firsts, 13 seconds, 3 thirds and 1 fourth. Also the \$100.00 challenge cup and gold medal for the highest scoring pen of fowls in the American or Asiatic class. Also silver cup for best pen of solid colored birds on exhibition. And special for best collection of Leghorns. I exhibited 53 birds with an average score of 93-1-10 points. THIS UNPARALLELED RECORD is a fitting supplement to my previous winnings. I have mated up as fine pens of the following varieties that can be found in America. Single and Rose Comb White Leghorns, White and Black Wyandottes, Barred Plymouth Rocks, Black Spanish, Blue Andalusians, and American Dominiques. Am now looking for orders for eggs from these grand pens at \$3.00 per 13, \$5.00 per 26. A few more choice birds for sale.

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Fancy Pigeons always on sale.

I will sell my prize-winning Silver Laced Wyandottes. They won 4 firsts, 3 seconds, and 1 third within the year, competing against the best birds in the country. Will also sell all my White Rocks a few Minorca females and a large number of Barred Plymouth Rocks. A few show birds of each kind for sale. These birds are all bred from the best blood that money could buy. My reason for selling is that I will breed Barred Plymouth Rocks in the future. Eggs \$2 per 13.
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I have one pair of young Toulouse Geese; Barred Rocks, Javas, Brahmas, S. L. Wyandottes, Houdans, Minorcas, R. C. Brown Leghorns, B. B. R. and S. D. Bantams.

Write for circular. I am sole agent for Manitoba and N. W. T. for Geo. Ertel & Co.'s Victor Incubators and Brooders, Mann's Bone Cutters, Green-cut Bone and other poultry supplies.

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are inclined to be a little dark mate them with a male a few shades lighter, but be sure he is evenly barred and he might be lighter in under-color. It is better to cull your flock, picking out, we will say, those good in all sections, and study them, then you are almost sure to get good stock, that is, if your strain is pure. If you want to bring in new blood, buy only from a reliable breeder. Do not buy a bird, first from one breeder, then from another, as you then will have two or three different strains all mixed up, and it is almost impossible to breed them true to color. Other parti-colored breeds are almost the same; it is better to breed from six good birds than twelve poor ones. Pick your hens over carefully, and when they are a little off in color or in coat, or in any section, try to mate them with a male that is good in these sections.

I will just say a few words on solid color birds. You will find them easier to breed, as they usually breed true to color, of if they don't you can easily keep those that have not the correct color out of your pens. Next year in breeding white birds, always try to have your birds snowy white. Do not keep those that are inclined to be brassy, as it will take you years to get it out of your flock again. Again, in black or any other color, do not breed any that are a little off in color, no matter how good they may be in other sections. I think by mating very carefully you may win some of the coveted first prizes next year, or if you don't, you will be close up.

Cacklings from the Poultry Show.

Some further notes from the Manitoba Poultry Show at Brandon, held over from our last issue:—

James White, Rapid City, was over with a nice lot of 16 White Rocks.

A. E. Shether, Brandon, won all around on eight Cochins.

Numerous sales are reported by poultrymen at the show.

There were other exhibitors worthy of note—but space forbids.

J. F. C. Menlove, Virden, was a new man, but he is a welcome addition to the circle.

The showing of turkeys, geese and ducks was claimed to be the largest ever seen in Manitoba.

E. Brown, Boissevain, with 15 birds, won on 12 of the number, and had only one which did not make 90 points or over.

James A. Mullen, Cypress River, had a large exhibit of Games. He showed us 15 birds averaging 93 4-5 points.

J. T. Hutchinson, Hayfield, was the largest exhibitor in turkeys, showing eight White and four Bronze.

J. Wilding, Winnipeg, made a nice little exhibit, and was successful in carrying off a number of good prizes.

F. Hutchinson, Hayfield, had a total of 13 turkeys, geese and ducks, and got prizes on all but one.

John Knowlton, Brandon, did very well with his White Wyandottes, and promises to become a well-known poultryman.

Peter Kahler, Moline, did very well with his White Rocks. He is a new man at the show, but he keeps the right sort of stock.

James A. Mullen, Cypress River, and E. Brown, Boissevain, certainly earned their laurels. The former drove 60 miles across country with his birds; the latter 50 miles.

In the contest for the Lieut.-Governor's challenge cup and the Winnipeg Association's cup, J. Kitson lost it by only 1-12 of a point.

W. H. Garside, Brandon, had a good collection of Bantams and larger fowl. His Golden, Mongolian and Ring-necked Pheasants were admired by all.

John Kitson, Macdonald, secured a prize with each one of the ten birds he had out. One of his cockerels was the highest scoring Wyandotte of any color in the show.

Wm. Anderson, Brandon, was the biggest exhibitor in Cochins, showing three varieties. He also had Blue Andalusians, and, altogether, made up a lot of 55 birds.

Chas. Midwinter lost the special prize for highest scoring pair of fowl by only 1/4 of a point. The fortunate winner was C. H. Wise with a pair of Houdans.

H. A. Chadwick, St. James, had out a nice exhibit, and took a great many prizes in Bantams, Partridge Cochins and Light Brahmas. His birds were well shown.

Thos. Reid, Winnipeg, showed 26 birds, and secured prizes on 25 of them with, only one third prize in the lot. We believe he showed the highest scoring Minorcas ever exhibited in the province.

A. J. Carter, Brandon, made up a total of 22 birds in Toulouse geese, Barred and White Plymouth Rocks and Silver Laced Wyandottes. He sold John Todd a pair of B. P. R. pullets scoring 91 1/2 and 92 points.

Milue Bros., Brandon, showed some nice Games. They are new men in this province, but have both been largely into poultry in Ontario, and propose making specialties of Indian Games, Black Hamburgs and Bantams.

Chas. Midwinter, Louise Bridge P.O., had out 50 birds, and did well. Two of his Houdan hens each scored 95 1/2 points. He showed us 15 birds with an average score of 93 1-10 points, and that, too, with two-thirds of the number under the weight clause.

Geo. Wood, Louise Bridge P. O., was the largest exhibitor from outside points, showing 53 birds, which made the splendid average score of 93 1-10 points. He had a very large exhibit of S. and R. Comb White Leghorns, also a large number of Black Wyandottes, Blue Andalusians and Black Spanish.

T. H. Chambers, Brandon, had an entry of 63 fowl, the largest number exhibited by any one man, and he got his share of the prizes and specials. His strongest classes were B. P. Rocks and Single-comb Brown Leghorns. He also showed three fine Black Minorcas, bred from best English stock.

J. W. Ilggintham, Virden, showed 16 birds, including 13 Light Brahmas, the largest exhibit in this breed, and all were in splendid shape. All of his cockerels were standard weight or over. He secured prizes on all but one bird, and that one had a score of 91 points.

T. Reid, Winnipeg, sent four birds to the St. Paul Poultry Show and won two firsts and a third prize. Last year he won a cup at this show.

Poultry raising is having a great boom in Ontario. The demand for speakers on poultry topics is so great that many requests have to be refused, and more interest is being shown in it by western farmers.


How frequently one finds good up-to-date buildings on the farm for everything but the poultry. For them any old place is good enough. Why should they not have an up-to-date building as well as the horses and cows. They will return a larger profit on their cost.

The managers of the Pan-American Exposition are planning to have a big poultry exhibition from Oct. 21st to 31st. The large stabling used for live stock during earlier months will be used for the poultry and pet stock. Classes have been arranged for every variety of bird. The prizes are liberal. For particulars, address Frank A. Converse, Supt. of Live Stock, 735 Ellicott Square, Buffalo, N.Y.

Chas. Midwinter, Louise Bridge, feels justly proud of the scoring of some of his poultry at the recent Brandon Poultry Show. In a handicap competition he would have had the two highest scoring hens in the show, a couple of his Houdan hens each scoring 95 1/2 points.

Arch. McPhail, Brandon, had a small showing of White P. Rocks at Brandon Show. We are glad to see farmers with fowl good enough to win prizes in such good company. Walker Bros., also Brandon farmers, made a good showing in R.C. White Leghorns, Cornish Indian, White Polish and Indian Game and Red Caps.

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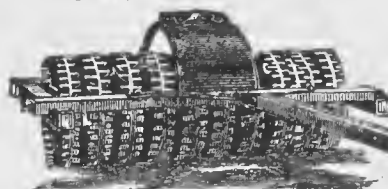
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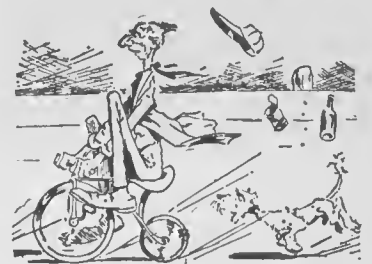
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As it is desired to make this column as interesting and valuable as possible to subscribers, advice is given in it free in answer to questions on legal matters. Enquiries must in all cases be accompanied by the name and address of the subscriber but the name will not be published if so desired. Free answers are only given in our columns. Persons requiring answers sent them privately by mail must enclose a fee of \$1.50. All enquiries must be plainly written, and facts stated clearly but briefly set forth.

ANSWERS TO QUESTIONS.

Chattels Borrowed.

Subscriber, Assa.: "My neighbor borrowed from me castings belonging to sulky plow. He broke one of them, and refuses to return them. What action can be taken to compel him to do so? As I want to work the plow early in the spring, should I notify him that unless the castings are returned by a certain date I will charge rent for the same?"

Answer—Demand them formally, and upon non-compliance therewith take legal proceedings to recover the chattels and damages.

Wire Fence Law.

S. R., Swan River, Man.: "If a neighbor fences his crop with only one strand of barbed wire and cattle get injured in this fence, can damages be collected for injury done cattle?"

Answer—Speaking generally, yes. Municipalities have the power to pass a by-law respecting wire fences.

Terms of Mortgage.

Q. E. D., Saskatoon, Sask.: "Years ago I mortgaged a farm. On it was a log stable in bad repair. In a time of scarcity of firewood, while mortgage was standing, I hauled away and burned the ruins of the stable, being non-resident at the time. Agent for mortgagee compelled me to pay \$12 for this, and 12 months ago foreclosed. I paid off the debt, but it now occurs to me that he should refund the \$12. 1. Had he a right to force me to pay in the first instance? 2. Should I have a good case in suing him for a refund? It seems to me that had I been resident on the farm and stable in ruins, I should have had a perfect right to burn the ruins. Then, why not even if non-resident? As to refund; the payment of the money served as a compensation to the mortgagee for so much loss to his estate, and when the estate was returned to my possession that should also be returned, as it represented a log stable which the mortgagee had no power to remove or withhold from the estate. Are not these correct premises in law?"

Answer.—1. It depends pretty much upon the terms of the mortgage. Usually a clause exists to the effect that all buildings and fixtures form part of the realty, and if in your case there was such a clause, the mortgagee had a right to prevent any spoliation. 2. In any case, having paid, it would be inadvisable to sue.

Life Assurance.

Hamish, Blythfield, Man.: "I insured my life before I was married. The money was to be left to my mother. My mother is dead and I am married. My father, sisters and brothers are alive. Who gets the money if I die? I could get no satisfaction from the company about it."

Answer—The heirs of the mother; but you have the power of revocation.

Suit for Account.

Subscriber, Glenella, Man.: "I gave a due bill in payment of balance due on a plow. In January, 1898, it was all settled but \$16.20. I have been sued

for the full amount. If I say nothing about this in court, can I plead the statutes of limitation?"

Answer.—No. Plea of the statutes of limitations does not apply. Plead settlement, if such was the case, or plead part payment.

Pound Law.

J. G. W., Kennell, Assa.: "What is the proper course to take in regard to an estray animal which is unclaimed after being advertised in the Gazette?"

Answer.—If within a municipality, the by-law (if any) respecting pounds will apply. If not, the provisions of the government order (if any) organizing a pound district will be your guide. Usually, animal can be sold by public auction.

Legal Exemptions.

Farmer, Ninette, Man.: "1. What property of a farmer is, under the present law, exempted from seizure. 2. Are calves reckoned as cows under this provision?"

Answer.—1. Three horses, mules or oxen, six cows, ten sheep, ten pigs, fifty fowls, and food for the same during eleven months. Horses over four years are not exempt unless used in earning the living of the debtor. 2. "Cows" shall include steers and calves.

Line Fence—Permission to Stack.

Subscriber, Lacombe, Alberta: "1. A put up half a mile of fence, and instead of putting it on line, put it about a rod on his own land and wanted B to pay half cost. B refused unless it was on line. A will not do that. If B builds a fence on the line, can B compel A to pay half the expense? 2. A gave B permission to stack hay on his land. Now A sends a letter to B to say that he will prosecute B or his representatives for trespass on his land. If B takes away the hay can A prosecute, or what is B to do to get the hay?"

Answer.—1. Yes. 2. No. Permission to stack implies permission to take away again.

Farm on Shares.

Old Subscriber, Ninga, Man.: "A rents a farm from B on shares, each to find half of seed, and each to get half of grain when threshed, B to pay half of cost of threshing, exclusive of board. The second and third year A goes into a stook-threshing syndicate, always being the first to get threshed, the cost of threshing grain out of stook being 7c. for wheat and 6c. for oats, against 4c. and 3c. out of stack. B refuses to pay half of the cost of stook threshing. Has he a right to pay it?"

Answer.—B should pay his share of the contemplated cost of the threshing.

Obstruction to Stream.

Reader, Elm Creek, Man.: "A party builds a dam across a stream that crosses his farm for the purpose of holding back a supply of water for his stock in a dry time in the summer. Have the neighbors any right to come and destroy the dam for the purpose of letting the water flow further down?"

Answer.—The Minister of Public Works alone has the power to remove such obstructions.

Public Statutes.

Subscriber, Glenella, Man.: "Is a councillor entitled to a copy of the municipal statutes or laws by which the municipal council is supposed to be governed? If not, how is a new councillor to get the information necessary to know when he is on legal grounds in his council duties or debates?"

Answer.—The King's Printer shall distribute copies of the Acts of Parliament, among others, to all administrative bodies and officers, according to instructions given by Parliament or by order-in-council. A councillor, not being an officer, is not, as such, entitled to

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a copy. He can see the statutes in the hands of the reeve and clerk.

Line Fences.

Subscriber, Portage la Prairie, Man.: "I own a farm (river lot), which I am improving. Can I compel the owner of adjoining lot to pay half the expense of putting up the line fence? He is not improving his lots, and they are not fenced at the end. If so, what are the proper steps for me to take? If not at the present time, can I at a future date, providing the land becomes improved, compel the owner to pay part of the same?"

Answer—Yes.

Non-Resident Pupil.

J. D., Grenville, N.W.T.: "I live in town and pay my school tax. I have a boy from the country who does chores for me and goes to school. Can our school trustees compel the parents of this boy to pay a tax for his education when he is in my service?"

Answer—Regulated by an agreement (if any) with adjoining school district, and where such does not apply, a rate not exceeding five cents per day per family, payable monthly in advance, may be charged for any children whose parents or lawful guardians are not ratepayers in such school district.

Exemptions.

Subscriber, Lacombe, Alta.: "Are farm implements, such as binders, mowers and threshers liable to taxation?"

Answer—Personal property to the amount of \$300, other than income, is exempt from taxes.

Fences.

Subscriber, Neepawa, Man.: "I enclose a clipping from a local paper, re fences, upon which I should be glad to get your opinion. What I wish to know is: Suppose this to be correct, have our local councils power to make by-laws contrary to this, thereby compelling a man to erect a fence to keep his neigh-

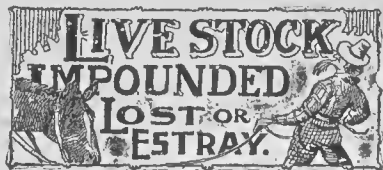
bor's cattle from pasturing on his grain? Some municipalities have a herd law, others what they call a fence law. Either of them is well and good, provided it is established. I have always understood that municipal law was the governing law, but this clipping completely contradicts it, and I think it is pretty nearly time we knew what the law was on this question, if there is such a thing as law. The following is the clipping: 'An eminent Canadian lawyer is said to have given an opinion lately which, if proven to be correct, will revolutionize a large portion of municipal law, says an exchange. It is, in short, to the effect that the owners of cattle doing damage to property are liable, no matter in what condition the fences are; or indeed, whether there is a fence at all. This opinion is not without reason. If Smith sows an unfenced field and sows it with grain, and Jones' cattle come and eat it up, surely it is not unreasonable to say that Jones should foot the bill; if he chooses to keep cattle he should keep them on his own property. He has no more right to go free of the damage because of there being no fence around the field than a thief would after robbing a house because the door was off its hinges.'

Answer—The enclosure you send pretty well puts the law in Manitoba, subject to any municipal by-laws on the subject. Pound by-laws provide a remedy, apart from the courts.

Fences.

Subscriber, Wawanesa, Man.: "A fenced his farm on three sides. B lives on the northeast quarter of the same section. Can A compel B to build his half of fence between A and B, if said fence is of no use to B? Can A fence B's half and collect payment from B? B's fence does not joint A's on the east. The law does not compel fencing, being in a herd law district."

Answer—Yes.



In this department we publish as full a list of the impounded, lost and stray stock of Western Canada as is available. Notice in one issue, not exceeding five lines of lost or stray stock is given free to any of our subscribers who forward information. Notices exceeding above mentioned length will be chargeable at the rate of 10 cents per line on all overplus matter. The list of impounded stock is compiled from reliable sources. By LOST stock is meant stock that has been lost and the owner advertises to find them. By ESTRAY stock is meant stock that has wandered on to a person's place, or into his band, and are advertised to find the owner. Write the letters of all brands very plainly. Display notice in black-faced type will be given for \$1 (which must be enclosed with the order), such notice not to exceed 40 words.

Impounded.

Argyle, Man.—One steer, color white, 2 years old. Joseph Emms.
Lansdowne Municipality, Man.—One light grey heifer rising two years old. Henry Bowes, 8, 17, 16.
Morden, Man.—One bay mare colt, about two years old, no mark. John F. Stephenson, 18, 3, 5.
Portage la Prairie, Man.—One pony mare, color dark brown, two hind feet white, about 10 years old. No visible brand. A. G. McBean.
St. Charles, Man.—Three horses, one black with three white legs, white nose, the tips cut off each ear, between 8 and 9 years old; one mouse colored, with white star in forehead, and one white hind foot, 3 years old; the third, a bay, with white stripe in the face, the right hind leg white, between 8 and 9 years old. David Isbister.
Starbuck, Man.—One dark red pony colt, two years old, no visible marks; one light pony mare colt, two years old, white hind legs, white spot on forehead, white spot half way down the nose, also white spot on left nostril. John Powers.

Lost.

Gladstone, Man.—One dark chestnut mare, with heavy tail, branded H on right shoulder, white stripe on face. W. S. Williscroft.
Gladstone, Man.—One steer coming 3 years old, spotted red and white; one steer coming 2 years old, white face, Hereford breed; both have a split in right ear and are branded C on right hip. Walter Clayton.
Hayward, Assa.—One yearling steer, roan, with red neck, branded 7 T V on right ribs; one yearling heifer, white, branded 7 T V on right ribs; one yearling heifer, red, small, branded 7 T V on right ribs. Wm. M. Thomson.
Pense, Assa.—One black horse, about 7 years old, weight about 1,400 or 1,500 lbs. Heavy wavy mane and tail. Not sure of any marks. James Badley.
Prince Albert, Sask.—From Birch Hills, one red 3-year-old steer, staggy horns, hole in right ear; one red yearling steer, hole in right ear; one spotted yearling heifer, white face and legs, hole in right ear and dehorned. John Thompson.
Yorkton, Assa.—Grey mare, 9 years old; bay mare, 6 years old; blue mare, 8 years old; bay mare, 3 years old; brown mare, 6 years old; all branded with a circle inside diamond on the left hind leg. A liberal reward given. T. H. Garry.

Estray.

Carievale, Assa.—One roan horse, about 7 years old; one bay mare, about 12 years old, no visible brand on either of them. R. F. Wilson.
Cypress River, Man.—One red and white steer calf, rising 1 year. R. Cleveland, 34, 7, 12.
Colleston, Sask.—One red and white 1-year-old steer, white face, short tail, brand resembling H on right hip. Thos. McCloy.
Coxby, Sask.—One roan steer and one white steer, both branded L on the right hip, both having bob tails. Frank Turner.

Edmonton, Alta.—One sorrel mare, with white mane and tail, grey forehead; one brown mare, left hind foot white, and white face, no brand. Wm. Logan.
Gladstone, Man.—One spring calf. John R. Ross, 7, 6, 13.
Mandan, Man.—One red heifer, few white spots, wire ring in left ear, about 2½ years old. Jas. H. Parker.
Morden, Man.—One dark brown horse with star in face and one white foot, weight about 1,300 lbs. John Scott, 4, 5, 13.
Oak Lake, Man.—One heifer. Thos. Bailey, 14, 10, 24.
Portage la Prairie, Man.—One black steer, coming two years old. Jas. Jones, 31, 10, 5.
Prince Albert, Sask.—One yearling steer, black, two white spots underneath, no brands visible. Morris Henry.
Shoal Lake, Man.—One 3-year-old heifer and a yearling steer. C. Lamont, 14, 19, 24w.

What Shall We Eat

To Keep Healthy and Strong?

A healthy appetite and common sense are excellent guides to follow in matters of diet, and a mixed diet of grains, fruits and meats is undoubtedly the best, in spite of the claims made by vegetarians and food cranks generally.
As compared with grains and vegetables, meat furnishes the most nutriment in a highly concentrated form and is digested and assimilated more quickly than vegetables or grains.
Dr. Julius Remusson on this subject says: Nervous persons, people run down in health and of low vitality should eat plenty of meat. If the digestion is too feeble at first it may be easily strengthened by the regular use of Stuart's Dyspepsia Tablets after each meal. Two of these excellent tablets taken after dinner will digest several thousand grains of meat, eggs or other animal food in three or four hours, while the malt diastase also contained in Stuart's Tablets causes the perfect digestion of starchy foods, like potatoes, bread, etc., and no matter how weak the stomach may be, no trouble will be experienced if a regular practice is made of using Stuart's Dyspepsia Tablets, because they supply the pepsin and diastase so necessary to perfect digestion, and any form of indigestion and stomach trouble except cancer of the stomach, will be overcome by their daily use.
That large class of people who come under the head of nervous dyspeptics should eat plenty of meat and insure its complete digestion by the systematic use of a safe, harmless digestive medicine like Stuart's Dyspepsia Tablets, composed of the natural digestive principles, peptones and diastase, which actually perform the work of digestion and give the abused stomach a chance to rest and to furnish the body and brain with the necessary nutriment. Cheap cathartic medicines masquerading under the name of dyspepsia cures are useless for relief or cure of indigestion, because they have absolutely no effect upon the actual digestion of food.
Dyspepsia in all its forms is simply a failure of the stomach to digest food and the sensible way to solve the riddle and cure the indigestion is to make daily use at meal time of a safe preparation which is endorsed by the medical profession and known to contain active digestive principles, and all this can truly be said of Stuart's Dyspepsia Tablets.
All druggists throughout the United States, Canada and Great Britain sell them at the uniform price of fifty cents for full treatment.
A. Bond, Hillview, Man., Jan. 25, 1901:—"Please send me a blinder for The Nor-West Farmer. The year's issue is of too much value to leave lying about loose."



Winnipeg, February 22, 1901.

The fair volume of trade reported in last review for the beginning of February has continued and on the whole has been very satisfactory considering the small amount of money in circulation. The wholesale trade that is doing now is nearly all in the way of spring, and especially summer goods. Grain deliveries continue very light and will continue so, as nearly all the grain is now out. There is plenty of snow throughout the country and the sleighing in many localities is the best it has been for years. The bonspiel brought hundreds of visitors to the city and helped business locally.

Wheat.

There is no substantial variation in prices. On the 21st the cables from Liverpool were pretty firm, but at Chicago very small export business was done. At the close the market stood as follows:—Cash 73½c., March 74½c. May began at 76½c., closed at 75½c. In honor of George Washington the market is closed on 22nd.

The inspections for the week ending Feb. 21st are as follows:—1 hard, 1 car; 2 hard, 10; 3 hard, 69; no grade, 132. Other grades, 5. Total, 217 cars of wheat.

Oats, 8 cars; flax, 2 cars.

Barley.

Nominal. For reliable seed the retail figure in Winnipeg is 45c. to 50c. Feed 5c. less.

Oats.

Any kind of oat is now worth 40c. Seed 43c. and may go a shade higher. Nearly all seed is from Edmonton.

Flour and Feed.

No change from last quotations.

Cattle.

There is very little doing, and prices remain at the figures quoted in last issue.

Hogs.

Choice selections off the cars at Winnipeg are worth 5½c. a pound live weight. Quite a number are coming in.

Butter

Dairy.—The market is overloaded with held and inferior stock, which is not wanted. Choice butter fresh from the churn is in good demand in tubs and rolls at from 16 to 18c. on a commission basis. The held stock is worth only 11c. to 12½c.

Poultry and Eggs.

Poultry.—Fresh killed stock is in good demand, at an advance of a cent or two for held stock, which is a little easier. Prices otherwise same as given in last market report.

Eggs.—A considerable supply is still coming in from Minnesota, but Manitoba supplies are more liberal and prices easier, bringing only 25c. a dozen, delivered in Winnipeg.

Hides.

Supply falling off. The market is also easier, owing to influences of outside markets. Top market quotations are now 5c. for frozen hides.

—At Regina a man lately sued his master for wages, but was met by a claim for damage to the master's property through his neglect. It has up till now been the custom with local justices to investigate both claims together, but Judge Richardson has just decided that the two claims must be tried separately. This may be good law, but will cause much extra expense, and help to defeat the ends of justice.

Farmers SHIP YOUR Grain

TO
THOMPSON, SONS & Co.

Grain Commission Merchants
Licensed and bonded under Manitoba Grain Act
WINNIPEG, MAN.

We handle all kinds of grain, obtain best prices, and make prompt returns. Money advanced on Bills of Lading. Enquiries re markets, etc., solicited.

Send Sample and Write for Prices.

NOTICE.

Owing to the quarantining of a portion of Northern Alberta, the Farmers' Institute meetings advertised for EDMONTON, STRATHCONA, FORT SASKATCHEWAN and CLOVER BAR, have been cancelled.

C. W. PETERSON,

Deputy Minister of Agriculture.

Government Buildings,
Department of Agriculture, Regina.
February 20, 1901.

JEWELRY MANUFACTURING.

We wish to impress on you the fact that we have the most complete plant for the manufacture of jewelry, west of the Great Lakes. We can reproduce or make from sketch almost any piece of jewelry you wish. And you will find our prices as reasonable as quality and good work will allow. Our stamp of quality means what it says, and the name Andrew is a guarantee of quality.

Our repair department is second to none in Canada.

Andrew

WATCHMAKERS AND JEWELLERS,
McIntyre Block, - WINNIPEG.

The Christmas-Tree Aster

For 15c. we will send a packet of the new Steele-Briggs Christmas-Tree Aster and also the beautiful Steele-Briggs Seed Catalogue. This Christmas-Tree Aster is new. It is very free-flowering. Often one small plant contains 50 to 75 blooms. It is easy to grow. Send for the Aster and Catalogue. It is a beautiful book.

THE STEELE-BRIGGS SEED CO., Ltd.
TORONTO, Canada's Greatest Seed H'se.



FREE DRESSED DOLL
Given for selling only 2 doz. beautifully finished full-sized Photo-graphs of the Queen at 10cts. each. Everyone wants a good picture of Her Majesty. This pretty doll has rosy cheeks, red lips, blue eyes, and an abundance of light, curly hair. She is 19 inches tall, with movable head, arms, and legs. Her dress is of rich material, cut in the latest style and beautifully trimmed with velvet and lace. Her hat is extremely fashionable and she has also stockings, slippers, and underclothing. Write for photos. Sell them, return the money, and we send this beautiful Doll, all charges paid. **THE HOME ART CO., BOX 500, TORONTO, ONT.**

The Nor'-West Farmer is published in Winnipeg, Manitoba, and is recognized as the best agricultural paper in Western Canada. Its columns are always full of most valuable reading matter for the practical farmer and stockman; the articles in the various departments are presented in an attractive manner and are always up-to-date and original. It is evident that the editors are zealous and enthusiastic in the work which they are doing for the profession of agriculture, and the people of Western Canada ought to be proud of the publication and give it their support. We wish The Nor'-West Farmer much success in its undertaking.—The Farm Students' Review, Minnesota Agricultural College.



Seed Grain Competition.

The selections of wheat received from competitors in the "Seed Grain Competition" for which Sir William C. Macdonald, of Montreal, donated the sum of \$10,000 to be distributed in prizes, have been examined. The work of examining the selections of oats will be completed and the results announced shortly. These prizes are awarded to boys and girls who live on Canadian farms and who have performed specified work in connection with the selection of seed grain. A set of prizes was arranged for each province in the Dominion; the Northwest Territories being considered as one province for this purpose.

The selections received for the yearly competition of 1900 contained 100 selected heads of the variety with which the competitor is operating. Twenty-five points were given for each gram (by weight) of grain of good quality contained in those 100 heads; and one point was given for each grain which the 100 heads contained.

The following is a list of successful competitors with spring wheat for Manitoba:—

1. Hugh Thompson, Roden... \$25 00
2. Andrew Thompson, Roden... 20 00
3. Bernard Bescoby, Stonewall... 15 00
4. John D. Dickie, Minnedosa... 12 00
5. R. C. Lumb, Cartwright... 10 00
6. Peter Brann, Gretna... 8 00
7. E. M. S. Sherris, Rapid City... 5 00
8. Gwenydd Lumb, Cartwright... 5 00
9. Clarence Scott, Marquette... 5 00
10. John S. McBain, Portage la Prairie... 5 00

Northwest Territories:—

1. S. Kirkham, Saltcoats... \$25 00
2. Silas E. Wheeler, Penhold... 20 00
3. Peter P. Abrams, Rosthern... 15 00
4. Jos. Neumeier, Langenburg... 12 00
5. Josafa Neumeier, Langenburg... 10 00
6. John Sim, Belle Prairie... 8 00
7. Peter Keith, Fitzmaurice... 5 00
8. Barber Fraser, Steep Creek... 5 00
9. George Sim, Grenfell... 5 00
10. Violet E. McKell, Regina... 5 00

FOR 1901 AND 1902.

I regret very much that so many of my young friends who expressed a wish to join in this educational movement, were unable to follow up the work in 1900. I have received letters from competitors in all the provinces, requesting that if possible arrangements be made to permit them to enter with the rest of the competitors next spring. I am desirous that as full an opportunity as practicable be given to those who entered the competition in good faith, and who, because of some unforeseen events, have been disappointed in their undertaking.

In order to assist those who are still anxious to follow up the work (without doing any injustice to those who have completed the work for this year), I shall do what I can to furnish those who agree to continue the work according to the instructions, with a sufficient quantity of specially selected seed which has been grown in, and of a variety believed to be suited to, the locality in which the competitor lives. Only those from whom an entry was received, and who have made an honest effort to take up the work in 1900, will be supplied with seed and admitted to continue with the rest of the competitors.

I shall also do what I can to supply similar seed for a quarter of an acre plot to any of the competitors who have completed the work this year, but have not been successful in winning a prize, provided that such competitor applies for the same and agrees to continue the work with the seed which

he or she has this year selected, and also with the seed which I shall endeavor to send him or her. That would make an additional seed grain plot to be operated the two following years, 1901 and 1902. Two prizes, however, will not be awarded to one competitor operating two plots of wheat, or two plots of oats; but any competitor will be eligible to receive one prize in the wheat class and one in the oat class. In cases where two plots of wheat are being operated by the same competitor the prizes will be awarded in both the yearly and the main competition from the plot which totals the greatest number of points according to the plan for awarding the prizes.

In order that arrangements may be made in connection with securing and distributing the seed for this purpose it will be necessary for my young friends to forward their applications as early in February as practicable. Competitors applying for seed should give their express office address and state which class of grain (wheat or oats) is desired.

THE EXTENSION OF NATURE STUDIES.

The expressions of appreciation which have been received from the parents and teachers of many of the boys and girls who have undertaken the work of managing a seed grain plot have been most gratifying. The "Nature Study" connected with the selection of seed grain according to the system which competitors in this competition are asked to follow, will be as helpful as it has been interesting. I am convinced that a systematic continued selection of seed grain from the most vigorous and productive plants in the plots will lead to great improvement in the crops throughout the whole country. As is now well known, Macdonald Manual Training Schools have been or are being started in seventeen cities or towns in Canada as object lessons of improvement and progress in educational aims and methods in public schools. The cordial and enthusiastic welcome, which they have received from all connected with the schools and school systems of the various provinces, has been a source of deep pleasure and satisfaction to Sir William C. Macdonald and myself. It is our desire and hope that we may be able to assist in extending some form of equally acceptable and efficient help in the way of object lessons of the application of practical and manual instruction in rural schools.

The educational influence of the "Seed Grain Competition" is having a fine effect with the boys and girls who have reached an age when they recognize that their school years are nearly ended. These boys and girls may not again have an inducement sufficient to awaken and to develop a liking for a careful and educational study of nature and nature's methods.

This Progressive Agriculture branch of the Macdonald Manual Training Fund is growing; and the selecting of its best fruits in the boys and girls themselves will also be looked after.

JAS. W. ROBERTSON.

Department of Agriculture,
Ottawa, Ont.

It goes without saying that every man who travels the roads of this country should be interested in them.

The C. P. R. have had constructed in their shops at Hochelaga two track weed burning cars. These cars are for use in the west for burning weeds along the tracks. They are equipped with oil burners and it is expected that they will destroy the weeds on more than one hundred miles of road bed a day.

THE WESTERN CANADIAN HAIL INSURANCE COMPANY

Head Office, Wawanesa, Man.

AUTHORIZED CAPITAL. \$500,000

JOS. CORNELL, Sec. and Manager.

Many farmers who would not think of contracting to buy an implement or other article of merchandise until satisfied as to its quality, probable utility and price, have been contracting for Hail Insurance of uncertain quality and cost. Their disappointment leads to condemnation of Hail Insurance generally. Might as well condemn all bridges over a stream because one has proved unsafe. The insurance sold by this Company and its ability to pay losses in full are open to inspection, and prices are marked in plain figures.

Provincial Hail Insurance.

By G. R. T., Hamiota.

I see that the Necpawa farmers are awake again to the matter of hail insurance, and I think they are on the right track, viz., provincial or municipal hail insurance. It seems to me that it is the only way that hail insurance can be satisfactorily managed. My plan would be for the province to pass a bill taxing each quarter-section, say one dollar, to pay losses. The losses could be adjusted some such way as this: Each municipality or township have its own valuator under oath, or its equivalent, and allow him a mileage fee and a small valuation fee; this would lessen expenses and shorten operations. He might be the reeve or a councillor of each ward or township. This adjutor could send in his report to the proper authority and the money forthcoming later for loss in full.

I have before me the report of one of our best hail insurance companies. I find that their whole income for 1900 insurance is \$10,284.25 and the whole losses are \$20,093.34, and that the expenses of operation are:

Commission to agents, \$822.75; commission to inspector, \$308.05; commission to manager, \$411.37; directors' fees, \$451.37; inspector's travelling expenses, \$570.80; extra adjustors, \$102.55; printing and stationery, \$242; postage and telegrams, \$244.73; advertising, \$302.56; auditor's fee, \$25.00. Total expenses to be paid out, \$3481.78.

If the notes received for 1900 insurance are worth \$10,284.25, then before anything is paid to losers, \$3,481.78 for expenses must be deducted from the \$10,284.25 income from the notes received, some of which, no doubt, will never be paid. This leaves only \$6,802.47 to pay \$20,093.34, or only about one-third in round figures. About one-third of the income is spent in running expenses. This looks to me a lamentable state of affairs. I do not see that a company could be managed on better principles, but to my mind the whole province could be managed in this way for about the sum that it now costs one company, if not for less. I would tax all assessable lands. No doubt non-residents would kick a little, but I am sure that the value of their land would be enhanced by such a provincial act. I would say that a maximum of \$6 per acre be paid in case of total destruction. I am sure if the dread of being "hailed out" was done away with, many farmers would consider their farms worth considerably more than under existing circumstances. Perhaps some one can devise a better scheme, if so I would only be too glad to see it done. I am for the greatest good to the greatest number.

Another plan of raising the fund would be for the inspectors to furnish their respective municipal clerks with the amount of the losses under their supervision, then he could easily strike the rate required of so many mills on the dollar, the same as the amount for each school district or any other amount to be raised by municipal taxation. This would put villages and towns in the same class as the owners of a quarter or more sections and would only collect the exact amount required to pay actual losses and expenses. Some, I presume, would look on this as a very heavy tax, but I paid in 1898, \$18.75, assessment in full, and 1899, \$14, an assessment of 80 cents on the dollar and the company paid all their losses. In 1900 I gave a note for \$10, had some hailed, which was adjusted at about \$35, but it appears I am only to get about one-third of the

amount, which would be only a trifle more than the one premium note. Or, in other words, I have paid in the last three years \$42.75, hail tax, an average of \$14.25 a year, and do not expect to get more than \$13 for it, as I was hailed only once. Now I never begrudged the money, especially when I saw a big black cloud coming, but think this is bad management. If it could be managed on the plan I mention, or some better one, each municipality would have to pay its own losses, which would seem more just. Villagers might kick, but I am satisfied that whatever is to the farmers' interest is to the interest of the villagers also.

Report of the Minister of Agriculture for 1900.

The annual report of the Dominion Minister of Agriculture for the year 1900 up to Oct. 31 has been published and contains many matters of great interest. On another page of this issue will be found one extract from it dealing with a most important experiment in tuberculin testing. The report proper contains a summary of the whole work that comes under the supervision of the department and it is a model of compactness and brevity, though covering a great deal of ground. The appendix is the biggest part of the volume, and gives in full reports from the Chief Veterinarian, Dr. McEachren, and his subordinates at the various quarantine stations. This portion covers 130 pages, some of them of great practical interest to farmers. We have marked for use in our next issue a letter on typhoid or swamp fever, which in some districts has been very fatal to horses.

Agriculture and Colonization.

The report of the select standing committee of the House of Commons on Agriculture and Colonization has just been published. It begins with the evidence of Prof. Fletcher on Insects and Weeds. The work of several others of the Experimental Farm experts is also given and a report on Tuberculosis, by Dr. McEachren. These cover 300 pages of matter full of interest to farmers. About 250 pages more are devoted to the work of immigration agents and the results of that work. The evidence brought out in this blue book varies in interest, but all of it is important and we hope to give in future issues a few extracts.

The newly-seeded area of winter wheat in the U.S. is estimated at 30,282,564 acres, which is 600,564 acres less than was sown in 1899. The report on the condition of this wheat at the beginning of the year was 97.1 per cent, of normal.

It is gratifying to note the number of cars of seed oats that are being offered for retail sale at all points over the country. It will be a wise course if every buyer of these oats will take the trouble to spread them on the barn floor and give them a chance to dry when thawed out, as some of them may be more raw than is at first suspected.

The statute labor system of doing road work is being gradually abolished in Ontario, each year sees an addition to the number of townships that are doing their own road work by contract. The time which each farmer used to put in is valued at so much per day and paid for in cash along with the rest of the taxes. There are now 44 townships doing this.

The Conservation of Soil Moisture by Tillage.

By Frank T. Shutt, M.A., Chemist,
Dominion Expt. Farms.

Every province, every district, looked at agriculturally, has its own peculiar problem to solve. Thus, the methods of culture, the character and order of rotation best suited in one part of the Dominion may not, and frequently are not, those desirable or necessary for another portion. The principles underlying intelligent or skilful farming are the same the world over, but their application must vary according to the nature of the climate (rainfall, maximum temperature, frost, etc.), and of the soil of the locality, as well as certain other factors of which we need not now speak.

Over large areas in Manitoba and the Northwest Territories nature has furnished the farmer with a soil exceedingly rich in plant food—so rich, indeed, that it has been termed a mine—a soil from which for many years drafts may be made by crop succeeding crop without appreciably diminishing its fertility. The use of commercial fertilizers for these soils is practically unknown, and probably will remain so for a very long time to come. But we are all aware that important as soil fertility is, there are other factors necessary if a maximum yield of the best grain is to be obtained. For such, weather conditions must be favorable. Thus, for example, there must be a sufficiency of moisture to draw upon when the needs of the plant for water are great; that is, during the period when leaf and stem are forming and there is a laying up of material which is to find its way into the seed as the grain matures.

What practical farmer does not know the value of a moist seed bed for the germination of wheat, and an ample rainfall during May and June? This is the better realized when we learn that an acre of wheat requires more than 300 tons of water to bring it to perfection and that the greater part of this water is necessary during the earlier stages of the plant's growth. The important question for the farmer of the Northwest is, therefore, are there any practical and feasible methods by which he can control soil moisture (for the control of the rainfall is beyond his power)? Can he store up moisture against a season of drought? Can he so affect the tilth of his soil as to make it more retentive of the moisture for the use of the crop? We answer unhesitatingly, yes. Science and practical experience have alike demonstrated that this can be done by summer fallowing, by preserving through cultivation a dry earth mulch which will prevent excessive surface evaporation.

To furnish farmers of the Northwest with data that might serve to illustrate this fact, we instituted last year a series of experiments upon soils in fallow and in crop at the Experimental Farms at Brandon, Man., and Indian Head, Assa.

The plan of work may be outlined as follows:—Two areas on each farm, having as far as possible soil of a similar character, were selected. Area or plot "A" was in fallow 1900, and in crop 1899; area or plot "B" was in crop 1900; in fallow 1899. The samples were taken in specially made canisters at two depths: 1 to 8 inches, and 8 to 16 inches. The first monthly collection was made in May, the last in November. Immediately on arrival of the canisters at the laboratory, the percentage of moisture in the soils was carefully determined. From the data so obtained and the weight of soil, the

amounts of water in tons and pounds per acre were calculated.

A summary of the results is presented in the following table:—

Date 1900.	BRANDON, MAN.				Date 1900.	INDIAN HEAD, ASSA.			
	In Fallow 1900. In Crop 1899. "A"		In Crop 1900. In Fallow 1899. "B"			In Fallow 1900. In Crop 1899. "A"		In Crop 1900. In Fallow 1899. "B"	
	tons.	lbs.	tons.	lbs.		tons.	lbs.	tons.	lbs.
May 11 ...	427	657	626	1686	May 8.....	510	1887	700	691
June 11 ...	418	353	749	805	June 8	507	889	685	550
July 11 ...	607	1262	673	1740	July 8.....	594	354	501	498
August 11..	644	604	440	565	August 8 ..	550	776	534	519
Sept. 11 ...	621	984	639	1008	Sept. 8	578	533	496	390
October 11..	571	1017	607	1951	October 8 ..	608	1641	623	1641
Nov. 11 ...	655	1916	606	1781	Nov. 8.....	625	306	618	789

Moisture: Amount per acre to a depth of 16 inches in soils at Brandon, Man., and Indian Head, Assa.

The complete and detailed data of this experiment are appearing in the forthcoming report of the Chemical Division of the Experimental Farms. In the account there given, full meteorological notes, including rainfall at Brandon and Indian Head also appear. These were furnished by Mr. Bedford and Mr. Mackay, to whom I am indebted for valuable assistance in this investigation.

Brandon: It will be observed that the soil in fallow in 1899, "B" contained in May, June and July, 1900, more moisture than the soil that had been cropped in 1899. Thus from the above figures we obtained the following results:—

May 11, 1900: Excess of moisture in land fallowed, per acre, in 1899, 199 tons 1,029 lbs.

June 11, 1900: Excess of moisture in land fallowed, per acre, in 1899, 331 tons 452 lbs.

July 11, 1900: Excess of moisture in land fallowed, per acre, in 1899, 66 tons, 478 lbs.

The large excess of moisture in the 1899 fallowed soil ("B"), it will be seen, rapidly fell off between June 11 and July 11. No doubt this was due to two causes: First, the greater absorptive and retentive power for moisture of the soil "A" (in fallow 1900)—rainfall of the month being between

4 and 5 inches—and secondly, the large moisture requirements of the growing crop on soil "B."

In a still more marked manner do

these causes affect the moisture content from July 11 to August 11, so that we find at the latter date a reversal of the condition first recorded, the soil "A" now contains 204 tons more moisture than "B." This is easily explained by the fact that the draft upon the soil moisture by the growing crop on this latter plot "B" would at this time be at its maximum.

During the later months of autumn there is evidently a tendency for the moisture content of the soils to approximate. This, the writer thinks, is largely due to the abnormal character of the season, the autumn being unusually wet and evaporation slight. However, notwithstanding this, the soil in fallow 1900, "A," contained in November about 50 tons moisture more than the cropped soil "B." Under more normal conditions, judging from our early results, we might expect a much larger excess of moisture at the close of the season in the fallowed soil.

Indian Head: The results from these soils are, in a large measure, similar to those obtained from the Brandon samples. Thus, we find for the first two months of the investigation:—

May 8, 1900: Excess of moisture per acre in fallowed land "B," 1899, 159 tons 804 lbs.

June 8, 1900: Excess of moisture per acre in fallowed land "B," 1899, 177 tons 662 lbs.

The July samples gave data in the same direction as those of August for

Brandon, namely, less moisture in the cropped soil, "B." The causes, we may suppose, are the same as those already indicated as exerting an effect at Brandon, the lighter rainfall at Indian Head accounting for the earlier appearance of the deficiencies in soil moisture in the cropped land. This condition continued to prevail throughout July, August and part of September. Thus, we have from the foregoing table:—

July 8, 1900: Excess of moisture per acre in fallowed land, 1900, 92 tons 1,859 lbs.

Aug. 8, 1900: Excess of moisture per acre in fallowed land, 1900, 16 tons 257 lbs.

Sept. 8, 1900: Excess of moisture per acre in fallowed land, 1900, 82 tons 173 lbs.

During the last two months of collection the amounts of moisture in the cropped and fallowed lands, as in the case of the soils at Brandon, tend to approximate, but, as also observed in the Brandon soils, a slight excess of moisture was present in the November samples of the land fallowed in 1900.

This investigation has been eminently satisfactory and yielded results of great value. They are worthy of careful and thorough study, for they are capable of being most instructive. The past season, and especially the earlier part, was a particularly favorable one for this experiment, the drought that prevailed during the spring and early summer months emphasizing in a most marked manner the beneficial effect of the previous year's fallowing. The data are, in a large measure, confirmatory of one another and at both points of observation furnish the strongest evidence of the value of fallowing as a means of storing up moisture for the crop of the succeeding year.

The first thing to bear in mind when teaching either a child or a class of children to sew is that each one must be interested and taught to look upon the work as a pleasure, not as a task.

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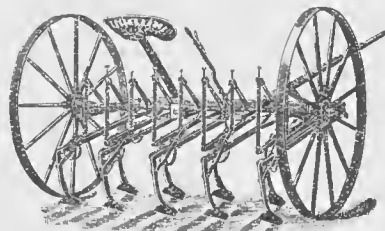
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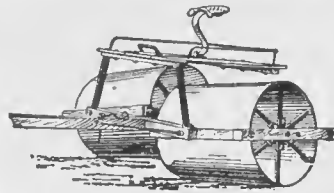
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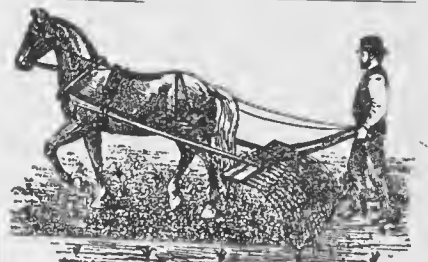


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Canada's Northern Forests.

In an examination before a committee of the House of Commons, Robt. Bell, an experienced government surveyor, gave, by means of a map, corrected down to a recent date, an outline of the immense extent of forest growth that stretches along the northern margin of the more settled portions of the Dominion of Canada. There is a much greater number of varieties of trees on the continent of America than in Europe, and in Canada can be found over 100 species, the greater number of which grow east of the Rocky Mountains.

The chief factors in causing a flourishing growth of trees are a suitable climate with a sufficiency of moisture. The variations of the climate in North America admit of a great variety of growth, from the conifers in the north to the tropical trees of the Gulf of Mexico to the south.

The northern forests of Canada stretch from Labrador to Alaska, a distance of 3,700 miles, and have an average breadth of 700 miles. Of the trees east of the Rocky Mountains, we have a northern group of 12 species, a central group of 60, a southern of 15, and a western group of 8, making the total of 95 species.

In our Territories we have a great triangular prairie and plain country. In its eastern, or prairie portion, there are clumps and bluffs of poplar, but on the plains we find only a few trees in the deep valleys of the rivers. This triangular region is about 600 miles in width on the international boundary and its apex is near the west end of Great Slave Lake. It is bordered principally with poplar, birch, etc., and in the north there is a considerable proportion of coniferous trees.

In the area of our northern forests we have a region about forty-four times greater than England, which is 59,000 square miles in extent.

From Ottawa to James Bay is about 600 miles, and it is about 600 miles further to the northern limit of the forests. In Labrador we have an area 1,000 miles wide from east to west by 1,000 miles from north to south, equal to the whole of western Europe, mostly covered by timber. On the east side of Hudson's Bay trees grow to latitude 57 degrees north. On the west side of the bay they range to latitude 59 degrees north, and continuing northwest in the Mackenzie basin, they reach latitude 68 degrees north, or to beyond the Arctic circle.

The distribution of the different varieties is mainly due less to the range of mean temperature than to the extremes of heat and cold, the nature of the soil, the amount of rainfall, and nearness to the sea, or other forms of water supply, affecting the moisture of the atmosphere.

The extent of our forest area is rapidly coming to be understood and valued as a future source of wealth to the Dominion. The forest areas of the rest of the world are rapidly being cleared without much attention being paid to their possible reproduction, and along with this comes a demand for large quantities of timber, not very desirable for other purposes, to be used in paper making.

Mr. Bell's paper goes into a very interesting description of the different varieties of timber in this wide area, and the causes, permanent or accidental, which have influenced this distribution; but we must pass on to the consideration of the causes which lead to its wasteful destruction. That by fire is no new thing, though the introduction of the friction match has done more to multiply forest fires than most people have any idea of. Smudges, camp fires and pipe lighting have

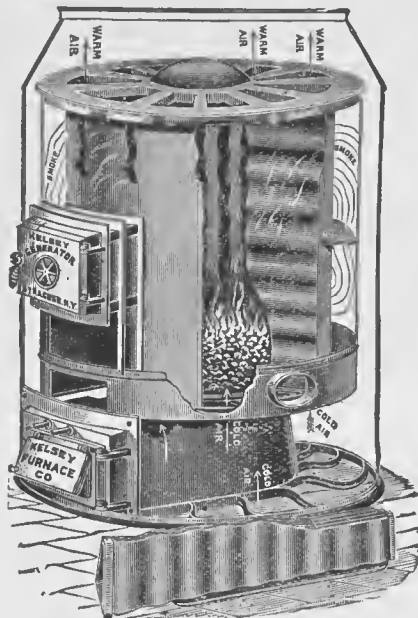
caused untold loss in recent years. Thoughtlessness and carelessness on the part of travellers, Indians and hunters each contribute their share to the waste of our forest wealth.

But even in untravelled regions there is much waste by fires that can only be set down to natural causes, such as lightning. There is a tradition among the Indians of a great fire started by a shooting star. If any proof is wanting of forest fires having occurred in still more remote times, it is supplied by the post tertiary deposits, where we find the charred remains of trees. In the Scarboro Heights, near Toronto, charred wood has been found two or three hundred feet below the surface, and similar evidence has been recorded elsewhere.

We have another proof in the habit of the Banksian pine, which requires fires to facilitate, if not to continue, its reproduction. The cones are exceedingly numerous. They curve inward and adhere closely to the branch. They grow in bunches of two, three or four and, will remain on the tree till it falls away with old age. Though it may be true that this is not the only way the seeds escape from the cones, it is certainly the principal means. The cones gape immediately after being scorched and the wind blows the seeds far away from the parent trees. This habit may have been developed like other habits supposed to be accounted for by the Darwinian hypothesis.

Mr. Bell calculates that of the present forest area, as found in its natural state, one-third may be considered as "brule," that is, under a second growth up to about ten years of age: one-third as intermediate, including trees between ten years and upwards; and one-third including trees assuming the character of those of one hundred years or more. As already stated the area of our northern forests may be reckoned as forty-four times as great as that of England. Any one of these 44 parts will produce wood enough to supply the ordinary demands of the present population of Canada. That is five million people could get what is required for mining, fuel, etc., by taking the timber from a space the size of England, and would be able to allow the other 43 equal parts to be reserved or used for export. Spruce trees grow much more rapidly up to about thirty years than they do afterwards. The

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addition made between thirty and one hundred years is much slower. The older the tree the slower the increase.

This sketch of our great forest wealth will show the necessity of some steps being taken to protect and preserve this great inheritance, as well as to ensure the driving of a proper revenue from this source, and it also shows the necessity for the organization of an association such as the one recently formed for the encouragement of systematic efforts for its preservation.

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A Garden.

By Saskatchewan.

It is an indisputable fact that the farmers of the west give very little care or attention to the garden. Here and there may be seen a plot of vegetables that is a credit to the owner; in other cases an alleged garden may be seen where a splendid growth of pigweed smiles mockingly down upon a few rows of spindly plants; others again make no attempt to grow a few vegetables and barely have enough potatoes to supply their needs. Why such is the case it is somewhat difficult to state. He would be considered a bold man who states that a vegetable garden can be made an absolute success in this variable climate, subject to extended spells of dry weather, as it is. Nevertheless it is true, and I will explain as concisely as possible from my own experience, how it may be done.

In the first place, vegetables never take any food in a solid form into their bodies. They draw the whole of their nourishment from the soil in a liquid form. Thus we see that the most important item to be considered in growing vegetables is a regular and liberal supply of water. This is considered to be a difficult want to supply here, the rainfall being limited and variable. We cannot control the rainfall, and irrigation is impracticable at present. But there is one other source of moisture over which we have complete power. I allude to the snow, which visits us every winter unfailingly. Most people have noticed what an immense quantity of snow collects in the course of winter on both sides of a rail fence. The following is the plan I have found valuable and recommend it to others. A plot 50x100 ft. is large enough with good care to supply an ordinary sized family. In the fall, after removing the vegetables, I make a temporary fence with poplar pickets and rails on each side of the garden twelve feet from the centre. The bottom rail should be on the ground and the next laid on it and so on till about four feet high. If this is done, the whole garden will be covered with a solid bed of snow several feet deep. I have found that the ground gets such a thorough soaking from the melted snow in the spring, that with proper care it enables one to have magnificent vegetables even in the driest seasons. The fence can be built in a couple of hours and removed in the same time in the spring, so that for less than a dollar expended in labor we provide the prime requisite for a profitable garden.

Most vegetables require rather rich soil, and this want is easily supplied by a liberal dressing of rotted manure. This should be spread evenly on the ground and ploughed under 9 inches deep in October and then well harrowed. Vegetables may be grown by most people by following directions in the seed catalogues, without any special knowledge, but, of course, experience is quite as valuable in a garden as elsewhere. Perhaps onions are rather difficult to raise successfully, at least more so than other vegetables. The points to be noticed in their culture are these: The ground cannot be too rich; the seed cannot be sown too early; half an inch of soil should be firmly pressed on the seed, with a quarter inch of loose soil on top, and the rows should not be more than 12 inches apart.

Another point I would specially urge is—constant cultivation. As soon as the plants show the length of the row, weeds or no weeds, start the hoe going. This leaves a covering of loose earth over the ground and prevents the sun from sucking the moisture up, and so leaves the whole supply of water contained in the soil for the use of the vegetables. Good seed is absolutely necessary. Never buy seed in packets from the store, but send to some long established and reputable seedsman.

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Making Advancement.

A. P. Stevenson, Nelson, reports that he finds the institute meetings he attended this winter much more satisfactory than ever before. They were better attended and much greater interest taken in tree growing. Farmers are giving more attention to the aesthetic side of life. A new house nearly always brings thoughts about the old home in the east and the shade and comfort supplied by trees. These are needed around the new home and farmers are eagerly enquiring after the best kind to plant. Others are planning to build a new house and are now also planning to plant out trees, etc., so that everything will be ready when the new home is built. He sees that progress is being made all over the province.

The value of products produced by the 200,000 beekeepers of the United States is estimated at over \$20,000,000.

Let your son, now a wee toddler, be able to say, years hence: "These magnificent trees that adorn my farm and home were planted by my father the first year of the present century!"

The past year has been a very bad one for the nurserymen of the province. Thousands of cuttings of trees and small fruits that were set out in the spring never grew.

The second annual meeting of the Canadian Forestry Association will be held in Ottawa on the 7th of March. The chief feature of the meeting will be an address on "Government and Private Forestry," by Dr. C. A. Schenk, Principal of the School of Forestry at Biltmore, N.C. Excellent papers will be also given by capable men.

The forestry meetings held throughout the west by E. Stewart, Chief Inspector of Forestry, have been well attended and as a general thing the meetings have been very enthusiastic ones. Resolutions were passed at every one of the meetings endorsing the action of the Government in the new move to assist in planting trees on the prairies.

Mr. Bedford stated at the forestry meeting in Winnipeg that in a drive across the country from Brandon to Gretna, he saw here and there all along the way evidences of the trees that had been distributed from Brandon Experimental Farm. Some of them were well cared for and doing nicely others were growing, but neglected, and others were dying or dead. Had such a system of supervision and instruction in planting, as it is proposed to start, been in working order, many, if not all, of these trees would have been living now.

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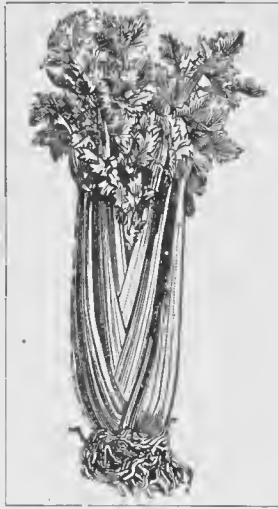
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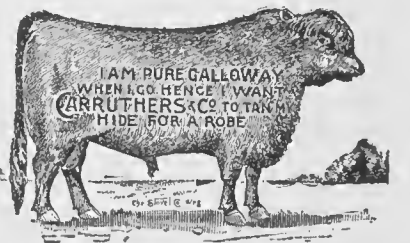
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Educate the Boys.

By J. G. Kavanagh, Deloraine, Man.

It is the young men—those who are just about to cross the threshold of life's responsibilities and enter upon the performance of its duties—to whom I address this paper.

To every young man there comes early in life the perplexing problem: "What Shall I Do?" Farmers' sons, by reason of their particular adaptation, desire, or force of circumstances and environments select the pursuit of agriculture as their life-work, while others look upon this employment or calling as beneath their dignity, and speak of it with scorn and contempt. People with such delusions should never enter upon the pursuits of agriculture. Agriculture is an honest and an honorable business worthy of the best efforts of the best men. It was the first occupation, and it will be the last, as bread must always be supplied for the sustenance of the human race. The history of the growth and development of agriculture has been co-existent with the birth and progress of the race.

From a primitive beginning it has grown to be a study—a science engaging the best talents and brains the country has produced. Its pursuits, when followed in a thorough and prudent manner bring health, wealth, honor and moral strength. Country life draws out and cultivates an admiration for the beauties of nature, which instinctively lead man's mind to higher and nobler things. Where, then, in all the avenues of life can the young man find work more in harmony with all that is good, ennobling, of lasting and permanent benefit, and more remote from the contaminating influences of the world than on the farm?

The boy or young man who is ashamed of the farm, with all its homely associations, and too proud to perform the duties which it imposes, has a misconception of life, and is unworthy to be called to higher things. It is, however, to the education and preparation of the boy for the farm which I desire more particularly to draw your attention. The fallacy has long existed that the boy of the farm needs no education. It is this wrong idea that I would like to have righted; this injustice that I would condemn. It used to be argued (and the thought is entertained by some to-day, I am sorry to say, for it is a blot on our civilization,) that if a boy could read and write and work through the simple rules of arithmetic, he was well enough qualified for the farm. Is not the boy of the farm a citizen? Do not all the obligations and responsibilities of citizenship rest on his shoulders with the same weight as upon the boys of other pursuits? Why, then, should he be deprived of the advantages which fit him for the performance of those duties? The world is to-day richer, wiser and happier because the men who have gone before us have added to its material resources by their industry, to its happiness by their generosity and benefactions, and to its worth by their honesty and integrity. The accumulation of property is not the end of life. Wealth, when properly considered, is only a means to make life more useful. Honor and fame are not the end of life. Were this true, the plaudits of men rather than God-like attributes would constitute manhood. Fame is only the shadow which a man casts, and the shadow depends more on the place where the man happens to stand than upon his size.

The best farmer is not he who has the greatest number of acres, or the largest herds or flocks, but he whose well-tilled lands send forth the greatest food treasure to supply the hungry in the markets of the world. Educate the

boy of the farm, then, that he may be useful, not alone in his calling, but as a citizen. The better education your boy has the better he will be prepared for his intercourse with the world. Education is the object of the farmers' institutes. Our governments should provide each province with agricultural colleges, at which the best opportunity is presented for farmers' sons to prepare themselves at a nominal expense, not only for agricultural pursuits, but for many other ordinary walks of life. Our farmers' institutes, managed and conducted by men of practical experience, and free to our young men, should be better attended. How can you expect a boy who has been made a slave on the farm from childhood to manhood without educational advantages, to become a symmetrical man and useful citizen? His physical nature may be developed, but his mind is untrained—physically he may be a giant but mentally he is a dwarf.

It is true, I am happy to say, many farmers are awakening to their responsibility. They are finding out that men without education cannot compete in the struggle of life in these days of rush and activity. We need brain as well as muscle. He who cannot make good use of both soon becomes distanced in the race. Our province is now supplying us with some of the very best agricultural periodicals and papers. The Nor-West Farmer and good agricultural books should be found in every farmer's home. With such literature to study during the long winter evenings, the farmer and his sons can learn of the experiments and tests made by men of practice and experience. However, I do not say this is the only education a young man requires, only as a means of further improvement for those whose parents cannot afford to send them to a high school.

Now, a word to the boys of the farm, and I am done. You are engaged in a noble work. It is worthy of any man's ambition. There may be other avenues which would bring you fame sooner, but none that will bring you the peace and comfort of the old farm. Among the sweetest and most cherished recollections that have come to many of our great men are those clustering around the old farm—the scenes of their childhood.

The time has now come when a farmer may be called to leave his farm to serve the state. Fix your mark high, and then work to reach it. Strive to excel in all you undertake. Think and study, as well as work. A lazy man will never succeed anywhere. Do not be satisfied with a bare existence. Strive to be the best and most industrious farmer your country produces. Your fortune, your destiny is in a great measure put into your own hands. All your powers are more vigorous unembarrassed and freer than they will be at any future period. Whatever impulse you now give to those desires that direction is likely to continue, and it will form the channel in which your life is to run. Consider, then, the employment of this important period as the highest trust which shall ever again be committed to you. As in the succession of the seasons, each by the invariable laws of nature, affects the production of what is next in course, so in human life every period of our age, according as it is well or ill spent, influences the happiness of that which is to follow. Honest and industrious youth gradually brings forward prosperous and flourishing manhood, and such manhood will end in respectable and tranquil old age.



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Rapid City Pioneers.

The pioneers of Rapid City and district held a reunion there on February 1st, and nearly 150 in all were present. This number included a good many ladies. A similar gathering was held years ago. H. C. Clay was called to the chair and thanked those present for their hearty response to the invitation given. This was an historical gathering and he would ask G. L. Stone to reply to the toast of "The Red River Cart."

Mr. Stone said that those who came in prior to 1880 had a very tender feeling for the old cart. Going back still further, some of them could remember seeing the Indians going from place to place, with the poles of their teepees tied across their ponies' backs, and the papooses sitting on the poles. As to the Red River cart, he could almost hear the music of it yet. (Here he imitated it, which amused the audience vastly). They had had some very curious experiences with the Red River cart and the oxen. They could all remember, no doubt, the camp at night, the carts arranged around the fire, and the pioneers lying around on skins or blankets between the carts and the fire. There was the filling of the pannikins, and straining the water through cotton at the slough for tea-making, and so on. On one occasion he could remember the tires of his wheels coming loose, and he drove into a slough, so as to tighten them, and thought he would make tea as well. He stepped to the back of the cart to dip up some water, when up went the cart, and in he went into the slough. (Loud laughter.). That was his first immersion. (Renewed laughter). He thought it would be a good idea to form themselves into an old-timers' association. It would be nice for their children to be able to look at the records in time to come, and he would propose they form an old-timers' association. (Applause).

Malcolm Turriff then spoke on "The Ferry on the Little Saskatchewan." He said: "When I arrived in Rapid City, April, 1879, I slept the first night in a small log house occupied by J. H. Martin. The house was filled, and we had to sleep on the floor. There had been heavy rains and the river was as high without the dam as it is now with it. The current ran very strong. All the talk that night was about the small ferry boat which the citizens had built a few days before and which had broken from its moorings and had been carried by the freshet and lodged among a bunch of willows out near the centre of the stream. Old Mr. Basler was one of the party that night; he was on this side of the river and his family on the other. Sam, Moore and his family were also there. The problem was how to get at the boat; a bath in the icy waters of the Little Saskatchewan was not at all pleasant. Now I had been an attentive listener to all this conversation and came to the conclusion that my opportunity for carving out a fortune in the great west had arrived. I made the proposition that I would swim out to the scow and then use it as a ferry boat. This seemed to meet with approval. Early next morning I plunged into the angry torrent, rescued the ferry and made \$5 before breakfast. Then it was 'Hurrah' from morning till night. I think it was the afternoon of the first day that I ferried over an outfit of surveyors from Prince Albert, among whom was our old brother pioneer with us to-night, George L. Stone. When an immigrant came to the bank of the river and wanted to cross, his load was taken across in about four trips; then his wagon had to be taken apart and the box taken over, then the wheels, then the axles and other parts. Then the horses had to swim across. These are a few of the trials and hardships endured by the pioneers of this district, to open up a fertile and prosperous country for those who have followed after." (Applause).

Mr. Stone—I have a very vivid recollection of that ferry. Eight of us in a party arrived here with four horses and four carts. We made our carts into

rafts and towed them behind Admiral Turriff's ferry boat, which necessitated a trip across the river for each cart, and for which Malcolm charged \$1 a trip, and \$1 extra per horse. The boss of the party, an old German nearly died after he had paid the bill. (Loud laughter).

D. McNaught told of their experiences with the old log bridge and the pioneer attempts at municipal organization, in which they narrowly escaped being saddled with the expense of building a jail and court house at Minnedosa. Half a dozen more old-timers next related their experiences, which, though severe at the time, are now very amusing to look back upon.

Andrew Near said he had much the same experience as the others, and although there was a humorous side, yet there was a serious side to it. When a man brought a young wife into a new place, as this was, there was a pathetic side to it. However, they had done all right. (Hear, hear).

Mr. McNaught said that when Mr. McGowan arrived there was no one here but Mrs. Basler and some of her children, and they were on the other side of the river. He threw a reel of thread across and Mrs. Basler then drew a wire across, and Mr. McGowan fixed the wire on the horns of the oxen (Cries of "Oh, oh," and laughter), and the family on the other side drew the oxen and cart across. (Roars of laughter).

Mr. Cardale said that before he came to Rapid City it was intended to be the hub of the universe. On the map five railroads were shown coming into it. When he came they were still invisible. More reminiscences were raked up, all of which afforded much merriment.

John Drury, in the course of a lengthy and amusing speech, said: "Forty years ago I left Ireland to be here to-night, but I stopped twenty years in England to rest. (Laughter.) And now after twenty years in Manitoba I can say I am glad I came. I have done much better than I could have done at home. It is a good place to live in, it is a good place to make a home in, and a good place to die in, in winter, for then the worms can't get at you till the spring. (Roars of laughter).

The meeting was a most enjoyable one all through, and it is likely a strong pioneers' association will shortly be organized.

Hints for Washing Day.

Try washing red table linen in a water in which a little borax has been dissolved.

Add a few drops of ammonia to the blue water to whiten the clothes.

Clothes turned right side out, carefully folded and sprinkled, are half ironed.

Sprinkle salt on a wine stain and pour hot water through until it is gone.

Wet fruit stains with alcohol or pour boiling water through them.

Kerosene may be safely used with boiling water to whiten yellow clothes. The quantity required is a tablespoonful to each gallon of suds.

For very yellow or grimy things, make an emulsion of kerosene, clear lime-water and turpentine in equal parts. Shake them together, until creamy, then add a cupful to a boilerful of clothes and boil for half an hour.

The same emulsion is good for very dirty articles, such as jumpers, overalls, working shirts, children's trousers. Use it in conjunction with strong suds, as hot as the hand can bear, and rub a little upon the spots that are dirty and grease spots. Let the clothes stand five minutes before washing out and be sure to have the second suds as hot as the first.

If coffee is spilt on linen the stains can be removed by soaking the part in cold clear water, to which a little borax has been added, for twelve hours.

If the stain is from tea or fruit, do not put the article in cold water, or the stain will become set. Simply pour boiling water over it until it disappears, which it will do if quite fresh.

Envy the Other Fellow's Job

I was passing an old livery stable, hands in pockets, coat-collar turned up, hat well down over my ears, but I caught this fragment of conversation blown through the icy air:

"Say, Bill, whacher think? (In a little shrill voice.) I was talkin' with a feller yistiddy, and he said, 'I wish I had your job, and didn't have nothin' to do but jes' ride around on a 'ansom keb all day.'"

After a solemn interval, a deep bass voice replied:

"Well, I'll be blowed! I reckon ef that feller hed to git up at four o'clock every mornin', and jes' do nothin' but ride, he might git too much of a good thing!"

I saw the point, and grinned to myself, but thought no more about it until a couple of evenings later.

At that time, Mrs. Ballington Booth was speaking to nearly a thousand people in my church, and holding them spellbound by her marvellous eloquence and magnetic personality.

I sat there in an almost petrified condition, and was saying to myself in a melancholy fit of envy: "I wish I could speak like that, and had nothing to do but just go round the country rousing people to such pitches of enthusiasm," when, in her quiet way, she said that last year she "had to raise twelve thousand dollars by platform and pulpit addresses to carry on her prison work!"

This dashed me, and the words of the old "keb" driver rushed up from my memory, "Well, I'll be blowed! I reckon if I had that amount of speaking to do, I would get too much of a good thing!"

I have thought a good deal about it since.

We always imagine the other fellow has the best job. The Irishman who wrote home to his parents in the old country that he had the "foinest job in America, because he only had to carry bricks and mortar to the top of a four-story building, where another felly had to do all the work," is either a myth or a miracle.

It is human nature to feel as the man did who envied the cab-driver, and as I did who envied the orator, for we only see the other fellow's superficial life!

Little Bill thinks that, if he could only have the job of the boy in the candy-store, he would be blissfully happy. But I guess if he had to stand on those little pipe-stem legs of his all day long, and be scolded and blowed, and perhaps eat so much candy as to get sick, he too would get too much of a good thing!

There are probably some seventy-five million people in America who would like to trade places with John D. Rockefeller, but I think I can hear him (when he has read about twenty columns of newspaper abuse, and lain awake all night wondering how he can keep the stock-jobbers from getting his millions) saying to himself, "Well, I'll be blowed! I guess, after they had had about twenty years of this sort of martyrdom, they'd think they'd had too much of a good thing!"

I've made up my mind to be as well satisfied with my own job as I can, and to try and appreciate the drawbacks of the other fellow's!—Chas. Frederic Goss in S. S. Times.

Both my mother and I can see now, as we look back, that she was too anxious that we should always do right in every small detail; she tried too hard to shield us from the consequences of our own ignorance and persistency. It would have been better, I think, if she had given us a little more liberty even to make mistakes, and let the pain or humiliation, which would be sure to follow, be our best teacher toward doing better next time. — Helen Watterson Moody in the February Ladies' Home Journal.

"What is the most popular color for a bride?" Tastes differ, but we should prefer a white one.

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A Day to Rest.

A congress was recently held in Paris for the purpose of discussing the question of Sunday rest. At the opening session letters were read from ex-Pres. Harrison and Mr. Gladstone, in which both argue for such a day of rest as Sunday, irrespective of any religious significance that may attach to the day. The medical and philosophical aspect of the case was considered as well as the question whether Sunday rest is practicable, especially in those large centres in which work must be carried on uninterruptedly, because every stoppage of the machinery is attended with considerable cost. Mr. Jules Pagny, a Brussels manufacturer, gave it as his opinion that a day of rest could be arranged for in all industries and without loss. There was, however, considerable opposition to his opinion. The congress finally adopted the following resolutions:

1. Sunday as a day of rest is possible in all industries, but in differing degrees. Sunday is the day which best suits employer and employee, as well from the standpoint of the individual as from that of home life. It is best to have the day of rest the same for all as much as possible.

2. When for technical or other reasons it is impossible to take Sunday as a day of rest arrangements must be made to have some other day set apart for the purpose, so that the workingman may have 52 free days in the year; these days to occur at as regular intervals as possible. This rest enables man to render better work in that it refreshes his physical powers.

Oregon has hit on a new experiment to keep her citizens sober. Every man who drinks is obliged to take out a license costing \$5 per year, and unless armed with the document cannot be served with liquor at any saloon or hotel. Every six months the names of the persons who take out licenses are to be published.

The place of the daughter in the home is as large or as small a place as she is able to make it. It is really a creative place, one in which she can be the brightest, happiest, most helpful influence in the home, or simply a partaker of the comforts and protection of the home, with no thought of any return on her part.—Ladies' Home Journal.

Sam Peasley was an odd character. He used to go and sleep in the graveyard—said it "was better than sleeping out doors, anyhow." Judge Sawyer once built a new tomb, and Sam took the first night after it was done to sleep in it. Meeting the owner next day, he called out: "Hello, judge! I laid in your tomb before you did." "Did you really, Sam? Well, did you see anything?" "Nothing much. Toward morning the devil came along and looked, but he see twan't Sawyer, so he went away agin."

The Price of a Man.

I have suddenly become famous as a detective. The fact is known all about this part of the world; it has been published in the county papers, and the city



Wm. H. Dunbar's Old Farm Home.

dailies have spoken of me as instrumental in bringing to justice a murderer, for which I received a thousand dollars as reward. I write these lines that I may fully state the facts upon which these reports are based, and to end the unpleasant notoriety I have gained. I have my share of pride, but I am not one of those ministers who seek to be famous outside of their calling. No one who knows me can deny that modesty is my chief characteristic; in fact, my best friends have told me that this trait has often stood in the way of my just advancement.

The events I shall relate here comprise the only remarkable episode in my life, and I will confine myself to a plain account of the most peculiar case of James Ratcliffe.

I had just finished my supper one evening, and was helping the children with their lessons, when the maid announced that a man wished to see me in the parlor. I drew on my coat and went to him. He stood up as I came into the room, and I saw that he seemed to be a well-to-do workman. He had a short, brown beard, light blue eyes, and a dignified and reserved appearance, although he was evidently not one used to moving in what we call good society. I took him to be about thirty-five years of age. His voice was deeply resonant and his utterance slow. He rarely took his eyes from my face during our interview.

"You are the Reverend Mercer?" he asked.

"Yes, sir," I answered. "Will you not be seated?"

"Do you believe in Jesus Christ?" he inquired abruptly.

"Certainly I do."

"Do you think that His example of self-sacrifice should be literally followed? Is it ever right in these days to give one life to save another?"

"Under proper circumstances I think it is."

"Well, I have been to your church, sir, and heard you preach. I think you are a good man. I want to tell you the story of my life. I have a request to make of you; and before I can do it, I must confide in you a sacred trust. That trust is my life's secret."

I begged him to think twice before he did this, as I had no desire to mingle unnecessarily in another's private affairs or receive a secret that might be burdensome to me.

"Some one must take this burden," he replied. "It is not for you, as God's man, to refuse to take what has been weighing me down for years."

With this he began at once to relate his story.

"I never had a father or mother, that I can remember," he said. "The earliest thing I can recollect is being with a lot of other children in a big house somewhere, with a great yard around it. I suppose it was an orphan asylum, or foundlings' home, or some such place. I was sent into the country, in Nebraska, while still young, to a family of good

people. I worked on the farm and went to school some. When I was about twenty years old the farmer died; his widow sold the place, and moved away. She made no provision for me, because, I think, she had some relatives that never liked my being with the old folks, and were afraid that they would give me some of their property. So they got the old lady away, and I was sent adrift.

"Then I lived the life of a farm hand. I won't go into all of the details. They are unnecessary. I will hurry and get to the matter that stands out like a blotch on my memory. It has no connection with the rest of my life. It seems like the devil had just reached in

and dabbed a big splash of red paint on my history. I ain't bad. I never was. Not that I am religious; I have been converted at several meetings, but being a hired hand, and just drifting around from pillar to post, I never was no good



Wm. H. Dunbar's Present House, Brandon Hills.

to any church, and finally I quit joining them.

"I won't go over it all, sir, but just say it was at a party one evening that it happened. I got drunk. I don't like liquor; it turns my stomach. But I drank then. I don't know why—except it was just to be smart and not take a dare from the boys. Going home, we all got into a row. I never knew how it came about, but I killed one of the men. No, I didn't, either. It was the red devil inside of me that done it, or I wouldn't have kept on beating him. I was crazy. When my mad fit had run itself out the drunk was all gone, too, and I stood there over his body as sober as I expect to be when I stand before God A'mighty's throne and He asks me about it. There was two or three fellers along, and one says:

"Lord! Jim, what 'a' you done?"

"Done!" I says. 'I don't know, Ike.' And I stood there with the club in my hand I'd killed him with—just stood there like an idiot.

"Then one of the boys says, 'We'd better git, boys,' and we all lit out as hard as we could. I run 'most all night and hid next day in a swamp. I kept on running and hiding for two weeks, living off of hand-outs, till I struck the Missouri river. I got a job there on a boat as a roustabout, and went down the Mississippi. I was in New Orleans for some time. One day there I got hold of a paper and found the story of my crime. I saw by it that the young fellow I had killed was the son of wealthy parents. The father had offered a thousand dollars reward for my capture."

He drew forth an old pocketbook, and taking from it a soiled scrap of newspaper, handed it to me. I read hastily the account of a murder, written in usual newspaper English, and saw that it tallied with what my visitor had said.

"Now, sir," he continued, "I don't want to be tedious, and won't go over a

whole lot that I might tell you. I have suffered a thousand deaths for that crime. But, before God, I have been straight ever since, just as I always had been straight before then. I must have had a good mother. I don't believe it was her fault that I never knew her. I never did want to do anything wrong. Since that terrible day I have never touched a drop of liquor, although, as you may suppose, I have had plenty of chances.

"I have been in this town going on three years. I got a job in a paper mill about a month after I came here, and have been working there ever since. I began as a common laborer, but have worked my way up, and for the last year have been getting \$3 a day as foreman. I boarded around at different places at first, but finally I struck the Widow Emmons' house, and have been there for about two years. She lives in the north edge of the town. Do you know her? No? Well she is a good woman. She has been kind to me."

He paused for a while, seeming under great embarrassment, and fumbled with the lapel of his overcoat.

"I may as well confess, sir, to you, as you are God's man, that I love her. Don't tell it." He looked guiltily around, as though he suspected someone might have overheard him. "It is not for me, a criminal, to love her, who is as good as an angel."

"She's got two children and a nice little home. She keeps boarders. I hadn't been there long till I learned the struggle that little woman was making against fate. It seems there is a mortgage on her property. She told me about it. Not that I ever conversed with her, as you may say, as friend and equal; but after my day's work I would drop into the kitchen as she was getting supper, to dry my boots, or some such thing, and she got into a way of talking to me about her affairs. The interest

on the mortgage is something enormous, and, what with keeping her children in school and making ends meet, she kept running behind. She might have got along better if she had set a poorer table, but she said she never could stand



First House at Brandon Hills, Man.

Erected September, 1879, by Geo. Roddick.

to see working men have poor food.

"As I say, I often dropped into the kitchen, and sat around. Them children kind o' took to me. Phil he'd climb into my lap and make me tell him stories till he'd go to sleep, almost every evening. I tell you Phil is the most beautiful child I ever saw."

The man rubbed a tear from his cheek, and continued: "He is the most confiding little fellow you ever saw. Why, when I would look at that little head laying on my arm, and all them curls falling over my coat sleeve, why it just—" He drew out his handkerchief and mumbled into it.

"Laurie, the little girl," he went on in a minute, "is a likely one, too, I tell you. Smart! Why, there

ain't nothing that that young one don't know. Whenever she gets into a new reader she just up and learns it by heart. What do you think of that?"

"Well, when I found out the circumstances, I sent the biggest part of my month's pay regularly through the post office to her, marking it, 'From a friend.' I remember the first time she got any money I sent her. She told me about it, and wondered who in the world it could be. She was mighty pleased, I tell you. Her face flushed up and her eyes brightened. Why, sir, the saints o' heaven couldn't be prettier than that woman was then."

"But, in spite of all, the mortgage couldn't be paid. It is due in three months. It's killing that woman. If she loses her home, what will become of her—and little Phil? She's rassed too hard with that debt to have it down her now. Now, sir, I'll tell you what I thought of the other night. I was awake, just a-thinking. Suddenly a thought hit me—like it was a brick. It knocked me clear out of bed. I got up and stood like a fool for a few minutes. Then I put on my clothes and walked out where I could get some fresh air, for my head was bursting. Mr. Mercer, there is just a thousand dollars needed to make that woman happy. Mr. Mercer, that's the price I will bring in a court of justice."

Ratcliffe paused. I suppose he expected me to say something; but I couldn't think of a word, and sat fidgeting in my chair. At last he went on:

"But I could never see them again. Think of Phil, and the pleasure of sitting by and seeing her work! When these things came to me I thought I couldn't stand to do it. Then I said to myself, 'Who are you? You are a criminal, a murderer. You need never hope for any happiness in this world. It would be better for her that you go away. Why not make your going away worth something to her? She don't think any more of you than just as a common boarder. You must be miserable all your life. She can be happy.' And then I kind o' thought, too, that I'd find a sort of contentment in being hung or going to the penitentiary, because I'd know that my secret was out, and the load would be off of my heart. So I made up my mind to do it."

"So that's why I come to you. I want you to take me to the authorities and give me up, but make sure that you get my reward. Thompson's my name here. My real name is James Ratcliffe. She'll never know. I'd a little rather she wouldn't. Take the money and pay the mortgage. Don't deny me, sir, for if you do I must get some one else to do it. They may cheat her and keep the money. I thought you, being a minister, would be sure to give it to her."

He had risen to his feet and come close to me in the earnestness of his entreaty. I arose also. We looked into each other's eyes in silence. It seemed to me that he was the greatest man I ever knew.

"Won't you do it?" he asked, pleadingly.

"Let me think," I said.

I am slow at conclusions. I turned away from him and walked to the win-



Geo. Roddick's Farm House, Brandon Hills, Man.

dow. As I looked out into the darkness I tried to grasp the situation. The decision I came to was this:

Here is a man who has nerved himself to do a heroic action; it may hang him or imprison him for life; but he will be glad over it throughout eternity; and when he meets me in heaven he will thank me. I determined to accept his proposition. If I had not believed in heaven I would not have done so. I turned to him and said:

"James Ratcliffe, I'll do it."

He grasped my hand with a grip that made it ache for two days, and said, "God bless you!" Then he sat down in his chair and wept like a little child.

The next day I went to the county seat and consulted the officials. Communication was had with the authorities where the crime was committed, and we found out that the reward money would certainly be paid upon the arrest of the murderer. To cut matters short, I will say that in three months James Ratcliffe was behind the bars of the Nebraska State penitentiary under a sentence of life imprisonment, and Mrs. Emmons received a cheque for one thousand dollars from an unknown person.

It was not more than a day after she had received the money, however, that she called at my house. She was not what you would term a handsome woman, but she had a very sweet and gentle face.

"Are you the preacher who received the reward for the arrest of James Ratcliffe?" she asked. I answered in the affirmative.

"Well, I am Mrs. Emmons," she said. "I know who the man you arrested is. He is James Thompson. A new boarder told me so, and showed me his picture in the newspaper. I have come to tell you, sir, that you are mistaken. You are all wrong. That man is no criminal. He is a good man. Why did you do what you did?"

"I did it because he laid it upon me to do, Mrs. Emmons. Of his own free will he chose the higher path of self-sacrifice. He never intended that you should know."

She looked at me haughtily a moment. "And you never intended to tell me!" she said. "Here, here, take the money—it is blood money. The curse of God is on it." She sat down and rocked and sobbed.

"Did you like Mr. Thompson, or Ratcliffe?" I asked.

"Like? I loved him. I love him yet. I always will love him. I would rather be with him in his cell to-day than to have the finest house in this town. He was the best man I ever knew. My children just worshipped him. I knew 'twas him all the time that was sending me his wages. He was so simple, he thought I didn't! But women see things, sir; they don't have to be told. And to think that he done *this* for me!" She covered her face with her hands and sobbed bitterly. "I know he is a good man," she said in a moment. "He is gentle with creatures; even the cat and the bird liked him. He liked to fix around flowers. He was so quiet and tender in all his ways. Oh, no, no, sir; a man like that cannot have the heart of a murderer."

She dried her eyes quickly and got up. "I do not want the money, sir; keep it, keep it." She drew her shawl about her thin shoulders and went out.

* * * * *

When I had finished telling James Ratcliffe's story to Governor Crounce, in his private office at the capital of Nebraska, he was silent a moment. Then he said, "Is this man sentenced for life?"

"Yes," I answered.

"Then may the Lord have mercy on the rest of us! Meet me at ten o'clock Tuesday morning at the State penitentiary."

I was there punctually at the hour, and shortly afterwards the Governor's carriage appeared. We went together into the prison office. James Ratcliffe was called. He was very glad to see me, and thanked me again for what I had done. While the warden was talk-

ing to the Governor, he took me to one side and whispered:

"How is *she*?"

"What's that he whispered to you, Mr. Mercer?" the gruff old Governor asked, looking suddenly around.

I told him. Then he stood up before the prisoner and said:

"James Ratcliffe, here is your pardon. You are a free man. Go back with Mr. Mercer, and," he added, smiling, "if you don't marry Mrs. Emmons inside of a month, I shall have you hanged."

But James Ratcliffe was not hanged. I had the pleasure of slipping a noose of a different sort from that of a hangman about his neck, shortly afterwards. It was a noose that bound him to Mary Emmons for life, and constituted him the lawful guardian of little Phil and Laurie. Instead of taking a fee I handed to the bride one thousand dollars which I had earned by my detective service.

And so I feel that I acquired my unpleasant notoriety in a good cause. There are many things in the matter which are far from disagreeable. Not the least among these is one that I want to mention; perhaps some of my readers will understand. Little Phil had observed how much his mother and his new father thought of me, and had discerned that I was in some way making them very happy, so when I went to leave the house he ran after me and pulled my coat.

"What do you want, little fellow?" I asked, taking him up in my arms.

"I want to kiss you," he said.—Frank Crane, in Munsey.

—

Had a Girl Already.

One of the disadvantages of filling a place heretofore considered sacred to masculine occupants was experienced by a young woman who is pastor of a small church in a Western town recently. In answering a call at the parsonage one day she found that her visitor was a young farmer, a member of a German colony living in the vicinity. He was asked to state his business, and the following dialogue was the result:

"Dey said der minister lifted in dis house," he said.

"Yes," replied the fair pastor.

"Vell—m—I—I want to kit merit."

"To get married? Very well, I can marry you," said the mistress, encouragingly.

"Oh, but I got a girl already," was the disconcerting reply.

—

To Make Candy at Home.

A most delicious confection that is rarely seen is made as follows: Take the orange rinds that are left over from breakfast, cut them into strips, removing carefully the bitter white pith from the inside. Put them into water and boil until they are quite tender. Now make a syrup by putting four tablespoonfuls of water to a cup of sugar. Place this over the fire and bring to the crackling point, then put in the orange strips and cook for five minutes. Remove from the stove and leave the rinds in the syrup until it cools; then drain on sieve and roll in granulated sugar. Placed in a dainty box lined with silk paper, this dainty confection is most acceptable.

—

A good story is told of the Venerable Archbishop of Rupert's Land, though not by any means at his expense. He was driving with a clergyman in Manitoba, whose diction is by no means as good as we trust his views are. On reaching their destination the clergyman asked His Grace to hold the reins while he got the "alter" out of the back of the carriage. "Do you generally use a portable altar in the country districts?" asked Dr. Machray. "Oh! no, Your Grace," was the reply, "I didn't mean the altar for the church. I meant the 'alter for the 'oss." Truly the English language "as she is spoke" is a mystery.

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Dickens to His Son.

As his sons went out into the world, Charles Dickens wrote a letter of counsel to each. This is one of those letters:—

"I write this note to-day because your going away is much upon my mind, and because I want you to have a few parting words from me to think of now and then, at quiet times. I need not tell you that I love you dearly, and am very, very sorry in my heart, to part with you. But this life is half made up of partings, and these pains must be borne. It is my comfort and my sincere conviction, that you are going to try the life for which you are best fitted. I think its freedom and wildness more suited to you than any other experiment in a study or office would ever have been; and without that training you could have followed no other suitable occupation. What you have always wanted until now has been a set, steady constant purpose. I therefore exhort you to persevere in a thorough determination to do whatever you have to do as well as you can do it. I was not so old as you are now when I first had to win my food, and do this out of this determination, and I have never slackened in it since. Never take a mean advantage of any one in any transaction, and never be hard upon people who are in your power. Try to do to others as you would like them to do to you; and do not be discouraged if they fail sometimes. It is much better for you that they should fail in obeying the greatest rule laid down by our Saviour than that you should. I have put a New Testament among your books for the very same reasons, and with the very same hopes that made me write an easy account of it for you when you were a little child. Because it is the best book that ever was or will be known in the world; and because it teaches you the best lessons by which any human creature who tries to be truthful and faithful to duty can possibly be guided.

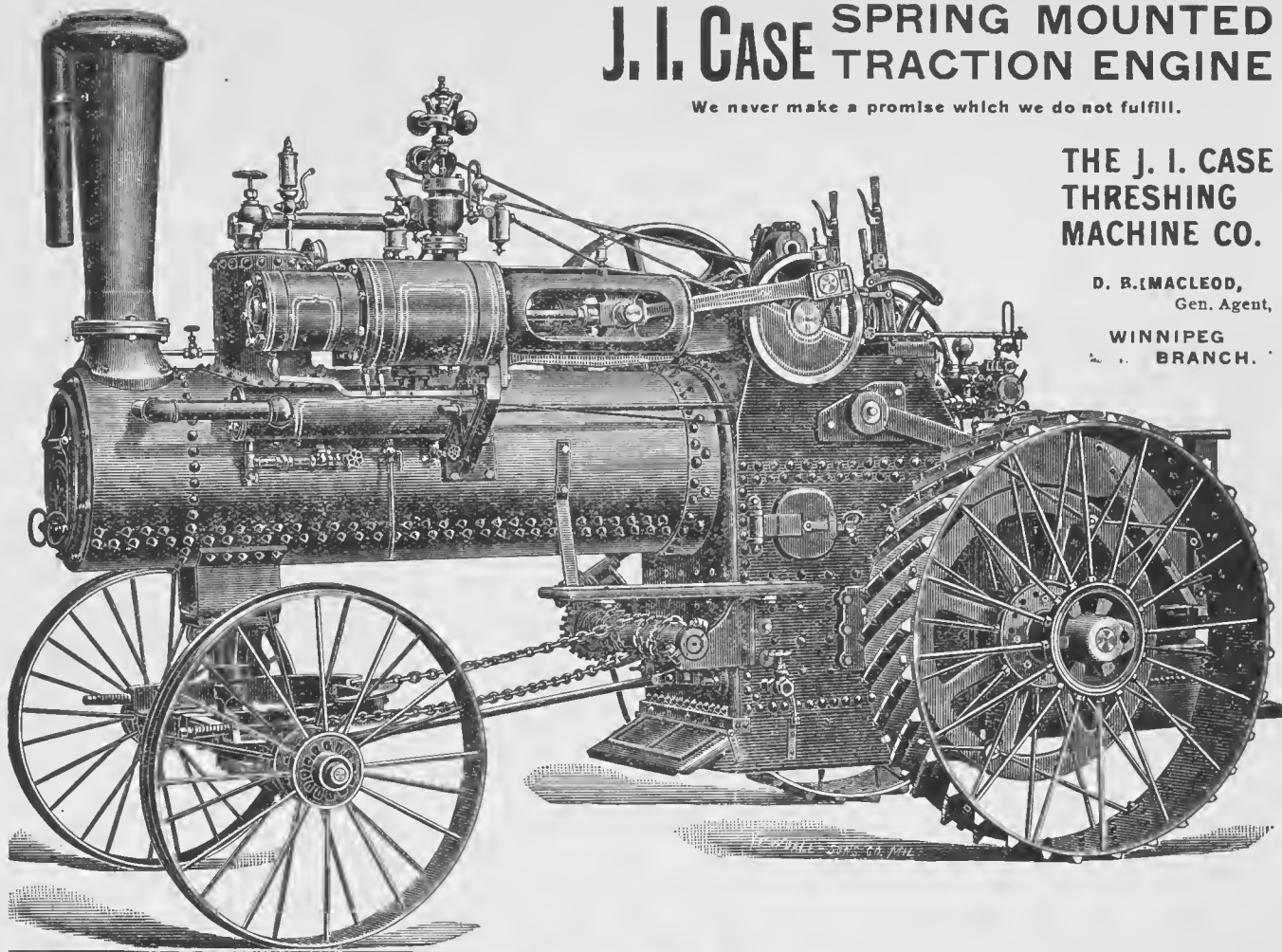
"As your brothers have gone away, one by one, I have written to each such words as I am writing to you, and have entreated them all to guide themselves by this book, putting aside the interpretations and inventions of men. You will remember that you have never at home been wearied about religious observances or mere formalities. I have always been anxious not to weary my children with such things before they are old enough to form opinions respecting them. You will, therefore, understand the better that I now most solemnly impress upon you the truth and beauty of the Christian religion as it came from Christ Himself, and the impossibility of your going far wrong if you humbly but heartily respect it. Only one thing more on this head. The more we are in earnest as to feeling it, the less we are disposed to hold forth about it. Never abandon the wholesome practice of saying your own private prayers night and morning. I have never abandoned it myself, and I know the comfort of it. I hope you will always be able to say, in after-life, that you had a kind father."

Making money is good, making a home is better, making both together is best.

"Do you believe a man can really love two women at the same time?" "Not after one of them finds it out."

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Schoolboy: "Did you know about that baby that was fed on elephant's milk and gained 20 pounds a day?" Schoolmaster (indignantly): "No, I didn't. Whose baby was it? Answer me, or I'll thrash you?" Schoolboy: "The elephant's baby."

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Pat's Strategy.

The Irishman has long been famous for his funny blunders. An exchange relates the story of one of his more recent ones.

Two tramps, one from green Erin and the other from the land of sauerkraut and pumpernickel, one night, exceedingly hungry, came to a farm house, the owner of which would give them lodging but no food. So to bed they went, supperless.

About twelve o'clock Hans got up and went softly down to the pantry. Having eaten a hearty meal, he returned, passing, from necessity through the farmer's bedchamber. When he got back Pat questioned him as to how he had passed Cerberus.

"An' did ye not wake him up?" he asked.

"Ya," answered Hans, "but I yoost stand still and say, 'Miaow, miaow,'"

"I'll do the same meself," said Pat. Rising, he went slowly and cautiously down. But he was not so successful as Hans. As he entered the farmer's room he stumbled over a shoe, kicked a chair, and woke the farmer, who cried, angrily:

"Who's there?"

"Oh, lay shtill," said Pat. "Oi'm the cat!"

She: "Why do married men live longer than single ones?" He: "They don't; it only seems longer."

Mother: "And do you really feel so very bad, Bobby?" Bobby: "Yes, ma. I ain't quite ill enough to need any medicine, but I'm a little bit too ill to go to school."

Every mother should make a point of teaching her sons to darn their own stockings and sew on buttons. Some day they may get married and leave home.

Benevolent Party: "My man, don't you think fishing is a cruel sport?" Angler: "Cruel! Well, I should say so. I have sat here six hours, have not had a bite, and am nearly frozen to death."

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